

# 2007 California Boating Safety Report

State of California The Resources Agency

# California Department of Boating and Waterways

Arnold Schwarzenegger, Govenor State of California

Mike Chrisman Secretary for Resources

Raynor Tsuneyoshi, Director Department of Boating and Waterways



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#### Dear Boating Enthusiast:

California ranks second nationally in the number of recreational vessels. As crowded waterways lead to an increased chance of accidents, it is not surprising that, in 2007, California ranked first in the number of boating accidents and second in the number of boating fatalities. Because of this, it is important to supply the boating public with the best information possible to enhance safety on the water.

A primary focus of this publication is the analysis of boating accidents that occurred in 2007. This information is compiled to help us direct our efforts to reduce the number of boating accidents, injuries and fatalities on California's waterways.

Of particular concern this year are accidents involving **fishing**, **alcohol**, **towing sports**, **overloading of vessels and personal watercraft**. Details about these accidents are found in the Executive Summary and in Section 2 of this report.

The report also includes information about the department's efforts to promote boating safety through law enforcement and safety education programs which involve essential, direct interaction with the boating community.

This report is available on the department's Web site, <u>www.dbw.ca.gov</u>. For more information about this or other accident statistics, please contact Gloria Sandoval (916) 263-0788 or gsandoval@dbw.ca.gov.

Sincerely,

Raynor Tsuneyoshi

Director

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# Mission Statement

To provide safe and convenient public access to California's waterways and leadership in promoting the public's right to safe, enjoyable and environmentally sound recreational boating.



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# **Executive Summary**

he California Department of Boating and Waterways (Cal Boating) administers many programs to provide for boating safety on the state's waterways. The 2007 California Boating Safety Report summarizes activities performed in three key safety program areas:

- · Boating accident analysis
- · Law enforcement
- Safety education

This report also highlights Cal Boating's current program enhancements and future safety initiatives designed to reduce accidents and make California's waterways safer.

Through the boating accident program, Cal Boating provides useful accident information to boaters, law enforcement agencies and educators. This information is communicated to the general public through the incorporation of relevant safety measures based on accident analysis into Cal Boating's safety education programs and law enforcement training programs.

**Exhibit ES-1**, on page 2 provides a summary of key boating accident statistics for 2007.

Cal Boating provides supplemental funding to counties for law enforcement activities and promotes uniform enforcement of boating laws through its law enforcement training program. In the 2006/07 fiscal year, the financial aid program allocated \$10.6 million to 36 counties and two cities for enforcement personnel and operating costs. In turn, the counties provided crucial boating law enforcement, as well as safety training for law enforcement officers and the public. **Exhibit ES-2** provides a summary of law enforcement activities supported by Cal Boating's financial aid program. In 2007, the law enforcement training program included eight courses on various boating safety topics, in which department staff trained 471 marine enforcement officers.



On-going partnerships with educational institutions, aquatic centers, and non-profit organizations provided crucial safety information to students and the general public. Additionally, Cal Boating sponsored a statewide radio and outdoor media campaign to promote life jacket use, environmental stewardship and boating safety course participation. **Exhibit ES-3** provides a summary of Cal Boating's safety education outreach programs.

#### **Exhibit ES-1**

# 2007 California Boating Accident Summary Statistics

# Overall Boating Accident Highlights

- In 2007, a total of 804 boating accidents were reported to Cal Boating, involving 482 injuries, 55 fatalities and \$10,643,800 in property damage.
- About 41% of all vessels and 75% of personal watercraft (PWC) involved in accidents were operated by someone other than the registered owner. These findings demonstrate the need to emphasize boating education for all vessel operators, not only vessel owners.
- Accidents occurred mostly during the summer months (May through September), on weekends, and during the hours between 2:00 - 4:00 p.m. The largest number of accidents (45%) occurred on lakes, followed by ocean/bay waters (34%).
- 21% of boating accidents, 24% of all injuries, and 15% of all fatalities occurred during the summer holiday periods of Memorial Day, Independence Day and Labor Day.
- 34% of reported accidents resulted from collisions with other vessels.
- Operator inattention (44%) was the most common cause of boating accidents, followed by operator inexperience (33%) and excessive speed (32%). (Many accidents had more than one cause.)
- Open motorboats were involved in 49% of all accidents. PWC were involved in 25%.
- 65% of vessels involved in all accidents were less than 26 feet in length. 72% of vessels involved in fatal boating accidents were also less than 26 feet in length.
- Of operators whose ages were known, those in the 31-40 age group were involved in more accidents than other age groups.
- Accidents involving water skiing activities
  accounted for 13% of all accidents and fatalities.
  Although water skiing accidents overall have been
  decreasing since 2003, fatalities rose from two in
  2006 to seven in 2007. (In this report, the term
  "water skiing" refers to all activities involving a
  vessel towing a person on a towline.)

#### **PWC Accident Statistics**

- PWC were involved in 25% of all accidents, 36% of all injuries, 16% of all fatalities and 3% of all property damage.
- Although PWC accidents involving radical maneuvers (such as wake jumping, donuts and spraying other vessels) have decreased 22% since 1998 when a law went into effect banning these activities, in 2007, they were at their highest level since that time. Accidents involving radical maneuvers have increased 50% since 2006.
- 75% of PWC involved in accidents were operated by someone other than the registered owner (57% were borrowed and 18% were rented).
- 57% of PWC-related accidents and 44% of PWC-related fatalities resulted from collisions with other vessels.
- The most common cause of PWC-related accidents involved operator inexperience (62%), excessive speed (58%) and operator inattention (51%). (Many accidents had more than one cause.)
- 33% of PWC operators were aged 11-20 and were involved in more accidents than any other age group, followed by the 21-30 age group (28%).

### **Youth Accident Statistics**

(Youth is under 18 years of age)

- Since January 1998, when the minimum age for solo operation of a vessel over 15 HP was raised from 12 to 16 years of age, the number of accidents involving youth operators has decreased 52%, from 120 in 1997 to 58 in 2007.
- During the 2007 boating season, a total of 69 youth operators were involved in 7% of all accidents, 10% of all injuries and 7% of all fatalities.
- Operator inexperience was a factor in 67% of accidents involving youth operators and was the most common cause of accidents involving them.
   Operator inexperience was a factor in only 33% of accidents involving operators of all ages.
- 30 operators involved in accidents (43%) were under the age of 16. Four of those operators were under the age of 12.

- Of the 30 operators under 16 years of age, 80% did not have an adult on board. This percentage has increased from 63% in 2006.
- Collisions with other vessels accounted for 72% of accidents involving youth operators.
- 81% of youth operators involved in accidents were operating PWC.

#### **Fatal Accident Statistics**

- Of the 55 fatalities in 2007, 45% occurred between October and April. 53% of all fatalities occurred on Saturday or Sunday.
- The most common causes of fatalities were operator inattention (44%), overloading/improper loading (29%), operator inexperience (25%) and excessive speed (18%). (Many accidents had more than one cause.)
- In fact, fatalities involving overloading/improper loading rose from two in 2006 to 16 in 2007—the largest number that the department has on record.
- The number of victims who died in accidents involving towing sports increased from two in 2006 to seven in 2007 which is the largest number of fatalities on record since 1979. Most accidents involved operator error rather than the fault of the towed individual.

- 45% of all boating fatalities were found to be alcohol-related, where testing could be conducted.
- 71% of all victims drowned. Of that group, 87% were not wearing a life jacket.
- 35% of all fatalities in 2007 were fishing-related. 53% of all fishing-related fatalities involved alcohol.
- Of all fishing-related fatalities, 95% were the result of vessels capsizing or victims falling overboard.
   89% of the victims drowned and none were wearing a life jacket.
- 50% of the vessels involved in fatal accidents were open motorboats, followed by PWC (21%), and paddle craft (14%).
- The majority (72%) of vessels involved in fatal accidents were less than 26 feet in length.
- Vessels capsizing (35%) and falls overboard (25%) were the most common types of fatal accidents.
- Operators in the 31-40 age group were involved in more fatal boating accidents than any other age group.
- 55% of fatalities occurred on lakes, 16% occurred on oceans/bays, 5% on the Colorado River, 16% on other rivers throughout the state and 7% on the Sacramento-San Joaquin Delta region.

# Exhibit ES-2

# Services Supported by the 2006/07 Financial Aid Program

| Regulation Enforcement              |        |
|-------------------------------------|--------|
| Verbal Warnings                     | 44,553 |
| Citations                           | 4,316  |
| Physical Arrests                    | 426    |
| Boater Assistance                   |        |
| Persons Assisted                    | 20,417 |
| Vessels Assisted                    | 4,944  |
| Accident Investigations             | 299    |
| Search and Rescue Operations        |        |
| Searches and Recoveries             | 739    |
| Education/Safety                    |        |
| Vessel Inspections                  | 31,534 |
| Organized Boating Event Supervision | 233    |

#### **Exhibit ES-3**

# 2007 California Boating Safety Education Programs

# **Educational Outreach to School Age Children**

| Program                                     | Students<br>Impacted |
|---|----------------------|
| AquaSMART,<br>Elementary Education          | 66,000               |
| AquaSMART, LIVE!                            | 48,000               |
| AquaSMART Boating,<br>High School Education | 13,000               |
| Poster Contest (14th Annual)                | 2,319                |

#### **General Educational Outreach**

### **Home Study Course**

30,000 courses distributed

#### **Boat Shows**

In 2007, Cal Boating attended over 15 events and reached over 20,000 boaters with educational materials.

#### **Aquatic Center Grants**

Grants were given to 33 organizations for scholarships, instructor training and for the purchase of training boats, equipment and related safety supplies. Approximately 80,000 individuals were trained.

### **Tri-State Boating Safety Fair**

In partnership with the Arizona Game and Fish Department and the Nevada Department of Wildlife, Cal Boating sponsored the fourth-annual Tri-State Boating Safety Fair on May 5, 2007.



#### **Publications**

In 2007, Cal Boating distributed 1.2 million copies of boating safety literature to the public. Cal Boating's Public Information Unit publishes and distributes more than 50 different boating safety publications.

#### **Spanish Language Outreach**

Cal Boating continues to provide the Spanishspeaking community with educational boating and safety literature.

### Multimedia Boating Safety Awareness Campaign

Cal Boating continued its successful "Responsibility" campaign: *If It's Your Boat, It's Your Responsibility*. Boating accident victim testimonials increased to drive home the safety message. The campaign's outdoor component consisted of permanently posted wall graphics and mobile billboards that visited marinas up and down the state on popular holiday weekends. The campaign also partnered with three television stations in Northern and Southern California for special-event promotions and life jacket giveaways.

### **Cal Boating Safety Team**

Between Memorial Day and Labor Day, the safety team's "Responsibility" bannered pontoon boat made appearances at more than 28 marinas and launch ramps in 2007. Over 3,000 boating safety quizzes were taken during the promotional period.

#### **Get Hooked on H2O**

Cal Boating continued its campaign promoting water as the boater's choice of beverages by partnering with AM1470 Radio Disney, CBS Radio, and Togo's. The campaign reminds collective clients/ audiences in Northern California to drink water, not alcohol, while boating and wear life jackets.

#### **Kid Casters**

Additionally, Cal Boating and AM 1470 Radio Disney sponsored "Kid Casters," a casting call for children 14 and under to audition to produce boating safety messages for the airwaves.

#### **Life Jacket Loan Program**

Cal Boating continues the Life Jacket Loan Program, partnering with fire stations and other voluntary venues to offer free short-term life jacket use for the public. Loan locations have gradually increased over the years to extend beyond the Greater Sacramento area, and the location list is posted on Cal Boating's Web site.

#### **T-Shirt Program**

Cal Boating continues partnering with marine law enforcement units, the U.S. Coast Guard Auxiliary and the U.S. Power Squadrons to distribute t-shirts aimed at rewarding and increasing the use of life jackets by children under the age of 12.

### National Safe Boating Week Events

During National Safe Boating Week, the week before Memorial Day weekend, Cal Boating sponsored the following events:

- Life jacket trade-ins—Cal Boating partnered with Radio Disney, CBS Radio, and 13 Sam's Club stores statewide to host trade-ins. Life jackets were offered free to the first 50 persons at each store who brought in children's life jackets that were outgrown or were deteriorated and unusable.
- Release of boating accident statistics
- News releases featuring boating safety tips
- Interviews with the media
- Events at aquatic centers
- In 2007, the department sponsored seven separate National Safe Boating Week events through its Aquatic Center Grant Program. Aquatic centers throughout California facilitated safety programs and free open houses which included safety demonstrations, on-the-water safety instruction, distribution of safety literature, life jacket giveaways and interviews with the media.

### **50th Anniversary**

The year 2007 marked our 50<sup>th</sup> anniversary as a department. In honor of this historic mark the department was invited to participate in the 2007 California State Fair and exhibit our history as a state department



in a museum like showcase. Elements surrounding our departmental history, as well as boating and aquatic safety were on display for the public to view during a 16 day run of the fair.

#### **Wear It California!**

For the very first time, a pilot program dubbed "Wear It California!" was introduced in 2007 designed to utilize targeted marketing efforts to increase the life jacket wear rate among recreational boaters in the Sacramento/San Joaquin Delta. A 2006 study indicated a six percent life jacket wear rate on the Delta. The program, which was co-produced by the U.S. Coast Guard, National Safe Boating Council, Boat U.S. and Cal Boating, began in May and lasted through Labor Day. By the close of the summer, life jacket wear had more than doubled from six to thirteen percent according to a study released soon after the campaign closed in September.

# **Other Programs**

#### **Safe Kids Coalition**

Cal Boating participates in the Greater Sacramento Safe Kids Coalition under the Drowning Prevention subcommittee. As a river city that also has a number of lakes and the Sacramento-San Joaquin Delta in close proximity, Sacramento has a need to protect its children from drowning when boating or recreating near the water. Cal Boating provides educational materials to the community and expertise on open water activities and incidents.

#### **California Clean Boating Network**

Cal Boating continues to participate in the California Clean Boating Network (CCBN). This network consists of a collaboration of government, environmental, business, boating and academic organizations working to increase and improve clean boating education efforts in California. Through the exchange of information and consideration of new trends in clean boating practices, CCBN members increase their ability to educate the boating public about clean boating practices.

#### **Boating Clean and Green Program**

The Boating Clean and Green Campaign is a statewide boater education and technical assistance program conducted by the California Department of Boating and Waterways and the California Coastal Commission that educates boaters about environmentally and safe sound boating while assisting marinas and local governments in identifying the need for and installing pollution prevention services for boaters.

Through partnerships with marine businesses, boating associations, environmental and non-profit

groups, state and local governments, including the Keep the Delta Clean Program and Dockwalker program, the Campaign has been successful in promoting safe environmental boating practices.

# **Abandoned Watercraft Abatement Program**

Cal Boating administers a program for the removal of abandoned watercraft and substantial navigational hazards from California's waterways. The Abandoned Watercraft Abatement Fund (AWAF) program grants funds to local public agencies for the removal, storage and disposal of these navigational hazards. In the 2006/07 fiscal year, a total of \$450,000 was allocated to nine public agencies for the removal and disposal of abandoned vessels and other substantial hazards to navigation.

New programs developed in 2007 focus on improving public outreach and expanding law enforcement training. Enhancements to existing programs reflect changing accident statistics and key safety concerns. **Exhibit ES-4** presents a summary of 2007 program enhancements and initiatives.

### **Exhibit ES-4**

# 2007 California Boating Safety Program Enhancements & New Laws

# **Program Enhancements**

#### **Media Outreach**

#### **Television Boating Safety Promotion**

In March 2007, Cal Boating partnered with the San Diego area XETV, Fox 6 News in the Morning to heighten awareness of boating and water safety in the San Diego area with a Spring Break Safety Promotion. The newscast promoted proper life jacket fitting, hands-on boating safety classes, water rescues and encouraged viewers to stop by for free life jackets. In addition to this, the television station produced and aired 30 "Boating Safety Announcements" that ran during the morning newscast throughout the week to drive viewers to Fox6.com to take the Cal Boating online safety quiz and be eligible for an angler prize provided by Anglers Marine. "Safety Totes" were available for "purchase" (bonus point redemption, no cash value) online through the "Couch Potato" viewer loyalty program. All 450 totes were redeemed by "Couch Potato" members.

Additional successful television "Safety Promotion" partnerships with news anchor personalities recording PSAs were carried out with Redding TV station KRCR for Memorial Day weekend and then with Sacramento TV station KMAX for the 4<sup>th</sup> of July holiday.

#### Internet

All media outreach directly prompted viewers and listeners to learn more about boating safety and education on the department's Web sites, www.dbw.ca.gov, www.BoatSmarter.com and BoatResponsibly.com.

These sites garnered 89,808 visits, with 65,165 being unique visits throughout the year. Radio and televisions also added a Cal Boating presence with banners, logos and links from their websites to the department's Web site. In addition, the stations included 2,369 streaming units of the safety messages over the boating season.

#### **New Laws**

As of January 1, 2008, the following laws are now in effect:

AB 118 establishes the Air Quality Improvement Program to fund air quality improvement projects, and the Alternative and Renewable Fuel and Vehicle Technology Program to provide grants and loans for projects that develop innovative technologies that transform the state's fuel and vehicle types to help attain climate change policies, including vesselrelated technologies. AB 118 transfers money from existing funds and increase fees related to motor vehicle registration, special equipment identification plates, smog abatement and original vessel registration only (from \$10 to \$20 for vessels purchased in even-numbered years and \$20 to \$40 for vessels purchased in odd-numbered years, as applicable) to fund these new programs. The bill also requires the Energy Commission to create an advisory committee, specifically including participation by recreational boaters and many other interested parties, to help plan for the Alternative and Renewable Fuel and Vehicle Technology Program.

AB 695—Requires retail sellers of new vessels with spark-ignition engines, on and after July 1, 2008, to certify that the vessel engine has a permanent label indicating that the engine meets or exceeds 2008 California emissions standards. AB 695 also requires the application form for vessel numbering to have a line or check-off box for the purpose of indicating the retail seller's certification. This provision would apply to vessels with spark-ignition engines under 373 kw (500 hp) manufactured after January 1, 2008, and all vessels with spark-ignition engines manufactured after January 1, 2009. In effect, this bill prohibits a person from purchasing an undocumented vessel outside of California for use in this state with the intent of avoiding the California emissions standards established by the California Air Resources board. This bill requires the applicant (buyer) to submit proof to the Department of Motor Vehicles that a new vessel with a spark-ignition engine meets or exceeds 2008 California emissions standards, if the retail seller does not provide this certification.

AB 951—Prohibits a person in a non-motorized vessel on the portion of the Lower American River from the Hazel Avenue bridge to the Watt Avenue bridge from possessing an alcoholic beverage when the Sacramento County Board of Supervisors



prohibits the consumption or possession of an open container along the land portions of the river during summer holiday periods. AB 951 requires Sacramento County to post notices along the applicable river section describing that a violation is punishable by an infraction.

AB 1683—Prohibits a person from possessing, importing, shipping, transporting, or placing in any state waterway, dreissenid (a.k.a. quagga) mussels, and authorizes the Department of Fish and Game and other agencies, as specified, to inspect and order the cleaning, impounding, or quarantine as necessary, of any conveyance potentially carrying dreissenid mussels, including at water delivery and storage facilities under specified circumstances. The bill also 1) authorizes the Department of Fish and Game, with the concurrence of the Secretary of the Resources Agency, to close or restrict access to waterways as necessary to prevent the spread of dreissenid mussels, and 2) provides that any entity in the state discovering dreissenid mussels must report the finding immediately.

For more information about the quagga mussel call 866-440-9530 or go to www.dfg.ca.gov/quaggamussel.

### Section 1:

# Introduction

alifornia's rivers, lakes and coastal areas offer boating enthusiasts a wide variety of recreational opportunities, including:

- 1,356,780 surface acres of water
- 30 popular whitewater rivers with approximately 2,600 miles of waterways
- 3,427 miles of coastline and tidal shoreline

Boating popularity grew steadily over the last decade, as reflected by the increase in the number of registered vessels. As of December 31, 2007, California had 964,881 registered vessels.

Cal Boating's mission is to provide safe and convenient public access to California waterways and to provide leadership in promoting the public's right to safe and enjoyable boating. To accomplish this, Cal Boating administers statewide boating accident, law enforcement, and safety education programs. The *California Boating Safety Report* highlights important statistics and describes current program activities to enhance boating safety.

# A. Boating Accident Program

Cal Boating's boating accident program disseminates accident information to boaters, law enforcement agencies, educational organizations and the media. The program is mandated by Part 173 of Title 33 of the U.S. Code of Federal Regulations. Annual accident information collected by Cal Boating is forwarded to the U.S. Coast Guard in Washington D.C. and is made a part of the Coast Guard's annual publication, *Boating Statistics*.

California accident statistics are compiled under state law, Section 656 of the Harbors and Navigation Code, which requires a boater who is involved in an accident to file a written report with Cal Boating when:

- A person dies, disappears, or is injured requiring medical attention beyond first aid; or
- Damage to a vessel or other property exceeds \$500, or there is complete loss of a vessel.



Department staff review reported accidents, determine the cause(s), and identify preventative measures and specific safety-related problems. Safety education and public information program staff incorporate these safety problems and related solutions into updated course materials, promotional activities and brochures. Law enforcement staff also communicate these safety problems during department-sponsored training sessions for law enforcement officers.

# B. Boating Law Enforcement Programs

The primary objective of Cal Boating's law enforcement program is to assist law enforcement agencies that provide waterborne law enforcement services. These local agencies enhance boating safety through the enforcement of safety laws and regulations. To this end, the department unit offers training to law enforcement officers to ensure uniform enforcement of boating laws, and provides financial support to counties for law enforcement programs and activities.

During FY 2006/07, law enforcement officers from agencies participating in the financial aid program provided nearly 50,000 operators with boating safety education through enforcement activities. Their verbal warnings and written citations were instrumental in helping to prevent accidents and improve boating safety.

# C. Boating Safety Education **Programs**

Cal Boating provides accessible boating safety education through partnerships with educational institutions and non-profit organizations. These entities, in turn, provide crucial aquatic and boating safety education to students and the general public. Both teachers and students praise the boating safety course materials developed by Cal Boating for their exceptional content and ease of use.

Additionally, Cal Boating's Public Information Unit provides safety information to millions of boaters through a Web site (www.dbw.ca.gov), publication distribution, public service announcements (PSAs)

and press releases. Cal Boating has more than 50 different boating safety publications covering many topics, such as boating and alcohol use and proper PWC handling. Basic boating information, including laws and regulations, rules of the road and safe operation practices, is provided to each person registering a vessel through the Department of Motor Vehicles.

Other safety messages are disseminated through Cal Boating's boating safety awareness multimedia campaign. These methods allow the department to reach boaters who may not otherwise come into contact with other forms of boating safety information provided at safety fairs, boat shows or in pamphlets.



### Section 2:

# **Boating Accident Program**

lacktriangle his section summarizes 2007 boating accident statistics. The California Department of Boating and Waterways, law enforcement agencies, the United States Coast Guard, educational institutions and California boaters use these statistics to help improve boating safety.

# A. Limitations of the Analysis

# **Reportable Accidents**

The statistics in this report reflect every reported boating accident in California in 2007. Although Cal Boating believes that all accidents involving fatalities were reported, many non-fatal accidents are never reported to Cal Boating or law enforcement agencies due to noncompliance with, or ignorance of, the reporting law. The U.S. Coast Guard estimates that only about 10% of accidents are actually reported to state programs nationwide.

An increase in the number of reported accidents from year to year might not necessarily reflect an increase in the actual number of accidents, but rather might result from improved reporting efforts or research from other sources (e.g., news clippings). To improve the accuracy of accident statistics, Cal Boating has increased its efforts to obtain all accident reports by working closely with law enforcement agencies.

#### **Accident Statistics**

A total of 804 accidents were reported to Cal Boating in 2007. Some statistics in this report are measured as a percentage of these total accidents. Often, there is more than one cause of an accident, more than one operator involved in an accident or more than one vessel involved. Therefore, the number of vessels, like the number of operators involved in accidents, usually exceeds the number of accidents. A total of 930 operators and 1,137 vessels were involved in boating accidents in 2007. Many statistics presented in this report are measured as a percentage of the number of operators or vessels involved or the number of causes—rather than the 804 accidents in order to provide more accurate comparisons.



#### **Alcohol Use**

Analysis of alcohol-related accidents can be complicated for the following reasons:

- Delayed Accident Reporting Often there is significant delay between the time of the accident and the reporting of the accident to law enforcement agencies. Delays can happen for a variety of reasons, including emergency care needs and the desire to avoid legal consequences. (Operators/passengers are reluctant to report themselves as being under the influence of alcohol or drugs.) Unfortunately, these delays can result in the loss of accurate data due to alcohol burn-off.
- **Delayed Body Recovery** Sometimes, the bodies of boating accident victims are not recovered immediately. A delay of more than two days in recovering a body can result in significantly altered blood alcohol levels due to the process of decomposition, a by-product of which is blood alcohol. In 2006, 26% of boating fatalities could not be tested for alcohol for the above reasons.

# **B.** Findings

The 804 accidents reported to Cal Boating during 2007 involved 482 injuries, 55 fatalities and \$10.6 million in property damage. All totals of were higher than 2006 totals (757 accidents, 445 injuries, 42 fatalities and \$8.9 million).

Exhibit II-1 presents boating accident statistics in California from 1980 through 2007.

# **Type and Cause of Accidents**

**Exhibit II-3** presents types and causes of accidents by vessel type. Overall, the most common type of accident involved collision with another vessel (34%). Open motorboats and PWC were the most common types of vessels involved in accidents and were involved in 49% and 25% of accidents, respectively. The most common type of accident involving open motorboats was collision with another vessel

**Exhibit II-1** 1980-2007 California Boating Accident Statistics

| Year | Number of Accidents | Number of<br>Injuries | Number of<br>Fatalities | Amount of<br>Property Damage |
|------|---------------------|-----------------------|-------------------------|------------------------------|
| 1980 | 657                 | 270                   | 112                     | \$2,039,800                  |
| 1981 | 728                 | 319                   | 87                      | \$3,655,630                  |
| 1982 | 696                 | 323                   | 103                     | \$2,497,000                  |
| 1983 | 648                 | 333                   | 95                      | \$3,713,100                  |
| 1984 | 791                 | 341                   | 93                      | \$2,491,700                  |
| 1985 | 869                 | 403                   | 76                      | \$4,246,400                  |
| 1986 | 741                 | 319                   | 68                      | \$2,645,500                  |
| 1987 | 905                 | 325                   | 54                      | \$3,381,600                  |
| 1988 | 745                 | 333                   | 51                      | \$2,396,100                  |
| 1989 | 632                 | 371                   | 43                      | \$3,669,800                  |
| 1990 | 761                 | 416                   | 50                      | \$3,131,200                  |
| 1991 | 750                 | 421                   | 58                      | \$2,653,800                  |
| 1992 | 689                 | 447                   | 59                      | \$4,360,100                  |
| 1993 | 743                 | 434                   | 67                      | \$2,052,800                  |
| 1994 | 709                 | 386                   | 40                      | \$1,740,300                  |
| 1995 | 833                 | 490                   | 52                      | \$2,536,500                  |
| 1996 | 850                 | 537                   | 56                      | \$2,241,700                  |
| 1997 | 925                 | 526                   | 43                      | \$3,266,800                  |
| 1998 | 772                 | 413                   | 58                      | \$2,299,600                  |
| 1999 | 907                 | 491                   | 42                      | \$2,864,000                  |
| 2000 | 906                 | 524                   | 51                      | \$3,038,400                  |
| 2001 | 907                 | 502                   | 48                      | \$2,841,900                  |
| 2002 | 911                 | 468                   | 53                      | \$3,732,850                  |
| 2003 | 963                 | 502                   | 61                      | \$3,820,000                  |
| 2004 | 744                 | 439                   | 44                      | \$4,073,400                  |
| 2005 | 801                 | 428                   | 58                      | \$3,584,700                  |
| 2006 | 757                 | 445                   | 42                      | \$8,913,375                  |
| 2007 | 804                 | 482                   | 55                      | \$10,643,800                 |

**Exhibit II-2** 2007 California Boating Accidents by County

| County                       | Accidents | Injuries | Fatalties | Property Damage        |
|------------------------------|-----------|----------|-----------|------------------------|
| Alameda                      | 8         | 4        | 1         | \$25,500               |
| Amador                       | 3         | 4        | 0         | \$2,550                |
| Butte                        | 10        | 6        | 0         | \$113,100              |
| Calaveras                    | 9         | 3        | 1         | \$8,600                |
| Colusa                       | 3         | 2        | 3         | \$1,100                |
| Contra Costa                 | 23        | 8        | 1         | \$149,850              |
| Del Norte                    | 2         | 0        | 1         | \$13,500               |
| El Dorado                    | 13        | 11       | 1         | \$25,800               |
| Fresno                       | 13        | 6        | 2         | \$29,250               |
| Glenn                        | 1         | 0        | 0         | \$550                  |
| Humboldt                     | 2         | 1        | 0         | \$2,000                |
| Kern                         | 21        | 15       | 0         | \$23,250               |
| Lake                         | 15        | 4        | 2         | \$35,500               |
| Los Angeles                  | 57        | 26       | 1         | \$2,490,900            |
| Madera                       | 16        | 8        | 0         | \$37,850               |
| Marin                        | 7         | 9        | 0         | \$20,800               |
| Mariposa                     | 4         | 1        | 0         | \$8,450                |
| Mendocino                    | 1         | 2        | 0         | \$3,500                |
| Merced                       | 8         | 0        | 0         | \$24,150               |
| Monterey                     | 7         | 0        | 0         | \$30,650               |
| Napa                         | 33        | 18       | 2         | \$63,900               |
| Nevada                       | 4         | 2        | 1         | \$1,300                |
| Orange                       | 86        | 18       | 1         | \$3,885,700            |
| Placer                       | 35        | 25       | 3         | \$526,000              |
| Plumas                       | 6         | 4        | 0         | \$6,100                |
| Riverside                    | 36        | 30       | 2         | \$69,600               |
| Sacramento                   | 26        | 21       | 1         | \$115,900              |
| San Benito                   | 1         | 3        | 0         | \$115,500              |
| San Bernardino               | 45        | 52       | 7         | \$176,450              |
| San Diego                    | 88        | 61       | 5         | \$483,250              |
| San Francisco                | 15        | 5        |           |                        |
|                              | 44        | 26       | 3         | \$823,250<br>\$374,550 |
| San Joaquin                  | 13        | 6        | 0         | \$374,550              |
| San Luis Obispo<br>San Mateo | 5         |          |           |                        |
| San Mateo<br>Santa Barbara   | 12        | 1        | 1         | \$4,600                |
| Santa Barbara<br>Santa Clara | 12<br>10  | 2<br>6   | 0         | \$448,950              |
| Santa Ciara<br>Santa Cruz    | 10        | 1        | 0         | \$8,550                |
|                              | •         | •        | 0         | \$1,200                |
| Shasta                       | 30        | 19       | 3         | \$57,850               |
| Sierra                       | 2         | 0        | 1         | \$5,000                |
| Siskiyou                     | 1         | 0        | 1         | \$0                    |
| Solano                       | 2         | 1        | 0         | \$157,200              |
| Sonoma                       | 3         | 2        | 1         | \$85,000               |
| Stanislaus                   | 15        | 12       | 3         | \$22,250               |
| Sutter                       | 4         | 4        | 0         | \$10,150               |
| Tehama                       | 9         | 13       | 2         | \$31,900               |
| Trinity                      | 4         | 4        | 0         | \$0                    |
| Tulare                       | 7         | 4        | 1         | \$14,500               |
| Tuolumne                     | 20        | 15       | 0         | \$44,150               |
| Ventura                      | 8         | 2        | 3         | \$36,650               |
| Yolo                         | 9         | 10       | 0         | \$44,100               |
| Yuba                         | 7         | 5        | 0         | \$1,350                |
| Totals                       | 804       | 482      | 55        | \$10,643,800           |

#### Exhibit II-3

# Types and Causes of 2007 California Boating Accidents by Vessel Type

|                   | Open Motorb                             | pen Motorboats |                                       | s Personal Watercraft |  | ls  | All Vessel                       | S   |
|-------------------|---|----------------|---------------------------------------|-----------------------|--|-----|----------------------------------|-----|
| Accidents         | Collision with<br>Vessel                | 27%            | Collision with<br>Vessel              | 57%                   | Collision with<br>Vessel               | 42% | Collision with<br>Vessel         | 34% |
| of                | Skier Mishap                            | 16%            | Falls Overboard                       | 24%                   | Flooding/<br>Swamping                  | 15% | Flooding/<br>Swamping            | 14% |
| Types             | Grounding                               | 16%            | Struck by Boat                        | 10%                   | Grounding                              | 12% | Grounding                        | 13% |
|                   |   |                |                                       |                       |  |     |                                  |     |
|                   |   |                |                                       |                       |  |     |                                  |     |
|                   | Open Motorbo                            | oats           | Personal Watero                       | raft                  | Other Vesse                            | ls  | All Vessels                      | S   |
| idents            | Open Motorbo<br>Operator<br>Inattention | <b>44</b> %    | Personal Watero Operator Inexperience | raft<br>62%           | Other Vesse<br>Operator<br>Inattention | 44% | All Vessel: Operator Inattention | 44% |
| uses of Accidents | Operator                                |                | Operator                              |                       | Operator                               |     | Operator                         |     |

(27%), followed by accidents involving skier mishaps (16%) and vessels grounding (16%). Most accidents involving PWC were collisions with other vessels (57%), followed by falls overboard (24%).

The most frequently stated causes of accidents overall were operator inattention (44%) operator inexperience (33%) and excessive speed (32%). (A boating accident can have more than one attributable cause.)

The leading causes of accidents involving open motorboats were operator inattention and excessive speed. The leading causes of accidents involving PWC were operator inexperience and excessive speed.

#### Time and Location

Accidents occurred mostly during the summer months (May through September), on weekends and between 2:00 and 4:00 p.m.

Of the 804 boating accidents, 165 (21%) occurred during the three holiday periods of Memorial Day, Independence Day and Labor Day. During these periods, 115 injuries (24%) and eight fatalities (15%) also occurred.

**Exhibit II-4** presents 2007 accidents, injuries and fatalities by location. Overall, most accidents and injuries occurred on lakes, 45% and 49% respectively, and more occurred on northern lakes.

# **Vessel Type and Length**

In 2007, open motorboats accounted for approximately 48% of all vessels registered in California, and PWC accounted for 18%. Open motorboats were involved in 49% of all accidents and PWC were involved in 25% of all accidents. A total 65% of vessels involved in all accidents and 72% of vessels involved in fatal accidents were less than 26 feet in length.

Exhibit II-5 presents registration and accident statistics for open motorboats, PWC and other vessels during 2007.

# **Operator Age**

Overall, operators in the 31-40 age group were involved in accidents more often than those in any other age group, followed closely by operators in 21-30 age group. The 31-40 age group was involved most often in open motorboat-related accidents, followed by the 41-50 age group. The 11-20 age group was involved most often in PWC-related accidents, followed by the 21-30 age group.

# **Operator Owner Status**

A total of 41% of all vessels involved in accidents were operated by the registered owner. An additional 41% of vessels were operated by someone other than the registered owner (33% were borrowed and 8% were rented).

**Exhibit II-4** 2007 California Boating Accidents by Location

| Location       | Number of<br>Accidents | Number of<br>Injuries | Number of<br>Fatalities |
|----------------|------------------------|-----------------------|-------------------------|
| Northern Lake  | 234                    | 149                   | 18                      |
| Southern Lake  | 131                    | 89                    | 12                      |
| Northern River | 36                     | 30                    | 9                       |
| Southern River | 1                      | 0                     | 0                       |
| Northern Coast | 19                     | 10                    | 1                       |
| Southern Coast | 224                    | 88                    | 7                       |
| SF Bay Area    | 27                     | 13                    | 1                       |
| Delta          | 83                     | 47                    | 4                       |
| Colorado River | 49                     | 56                    | 3                       |
| TOTAL          | 804                    | 482                   | 55                      |

# C. Accidents Involving Personal Watercraft (PWC)

# **Background**

A PWC is a small vessel that uses an internal combustion engine powering a jet pump or propeller. It is designed to carry from one to four persons and to be operated by a person sitting, standing or kneeling on the vessel rather than in the conventional manner of sitting or standing inside the vessel.

The use of a PWC is subject to all state, local and federal regulations governing the operation of all powerboats of similar size.

As of December 31, 2007, there were 172,476 PWC registered in California, comprising 18% of registered vessels. Exhibit II-6 shows the total number of PWC registered in California from 1993 through 2007.

# **Findings**

A total of 204 PWC-related accidents were reported in 2007, resulting in 172 injuries, nine fatalities and \$356,250 in property damage. The accident, injury and fatality totals were higher than 2006 levels (180, 145, five respectively) and the total property damage was lower (\$389,475 in 2006).

Exhibit II-7 presents a 15-year summary for PWC accidents, injuries, fatalities, and property damage.

Exhibit II-8 presents 2007 reported PWC-related accidents by county.

PWC were involved in 25% of accidents, 36% of injuries, 16% of fatalities and 3% of property damage.

Accidents involving PWC continue to remain significantly lower than the 1997 totals of 391 accidents, a decrease of 48%.

For a number of years, PWC-related accidents have been on a downward trend. This long-standing decrease appears to be attributable mainly to two laws affecting PWC that took effect in January 1998. The first law prohibited activities such as wake jumping within 100 feet of another vessel, spraying down other vessels and playing "chicken." These activities now constitute endangerment of life, limb and property. The second law raised the minimum age to operate a vessel of over 15 HP alone from 12 to 16 years of age. Since the vessel of choice of operators between 12 and 16 is the PWC, restricting this group's ability to operate vessels has resulted in a decrease in PWC-related accidents. This reduction in accidents is also discussed in the section Accidents **Involving Youths.** 

PWC accidents involving radical maneuvers such as wake jumping, donuts and spraying other vessels remained 22% lower than the 88 accidents that

### Exhibit II-5

# 2007 Registration and Accident Statistics for Open Motorboats, **PWC and Other Vessels**



\* These fugures are estimates, based on Departmento of Motor Vehicles Registration categories. \*\* The sum of the percentage does not equal 100 percent because some of the accidents, injuries, and fatalities involve multiple types of vessels.

occurred in 1997. However, they are at the highest level since the above-mentioned 1998 law took effect. Radical maneuvers accounted for 69 PWCrelated accidents in 2007. These accidents have increased 50% from 2006.

Accidents involving youth operators remained low in 2007, falling from 120 in 1997 to 58, a decrease of 52%.

# Type and Cause of Accidents

#### **Overall Accidents**

Most reported PWC accidents involved collisions with other vessels (57%). Falls overboard accounted for 24% of accidents. Persons struck by boats accounted for 10% of accidents.

An examination of the 116 collisions involving PWC reveals that 80 (69%) involved a PWC colliding with a second PWC.

The most common causes of all PWC accidents were operator inexperience (62%), excessive speed (58%) and operator inattention (51%). (Some accidents have more than one attributable cause.) All of these causes are operator-controllable factors.

#### **Operator Age**

PWC operators in the 11-20 age group were involved in more accidents than any other age group followed by the 21-30 age group.

#### **Operator Owner Status**

A total of 75% of PWC involved in accidents were operated by someone other than the registered owner (57% were borrowed and 18% were rented).

# **Additional Safety Concerns**

- Many PWC operators do not realize that when they let off the throttle, they lose steering capability. Numerous accidents have resulted from this lack of knowledge.
- PWC sometimes present a danger to their riders because of the craft's lack of visibility when it capsizes. Riders who are attempting to remount their PWC are often not visible to other watercraft, and are liable to be struck by other vessels.
- Although rare, lanyards sometimes present difficulties for operators. In one case, the operator fell overboard and was injured, rendering him unable to swim back to the craft. Since the lanyard was on his wrist, the passenger was unable to maneuver the craft to retrieve him. In other cases, lanyards became detached and could not be reattached quickly enough to avoid grounding or colliding with another vessel. These situations are rare, but noteworthy.

# D. Accidents Involving Water Skiing

In this report, the term "water skiing" refers to all activities involving a vessel towing a person on a towline.

In recent years, the sport of water skiing has evolved beyond traditional water skiing and now encompasses the towing of inner tubes, wakeboards, kneeboards, wake skates, wake surfers and air chairs.

# **Findings**

In 2007, a total of 105 accidents involving water skiing activities were reported to Cal Boating, resulting in 96 injuries and seven fatalities. The accidents accounted for 13% of all accidents, 20% of injuries and 13% of fatalities.

Accidents involving inner tubes accounted for 44% of water skiing accidents, followed by wake boarding (36%) and traditional water skiing (18%).

**Exhibit II-6** 1993-2007 California PWC Registrations

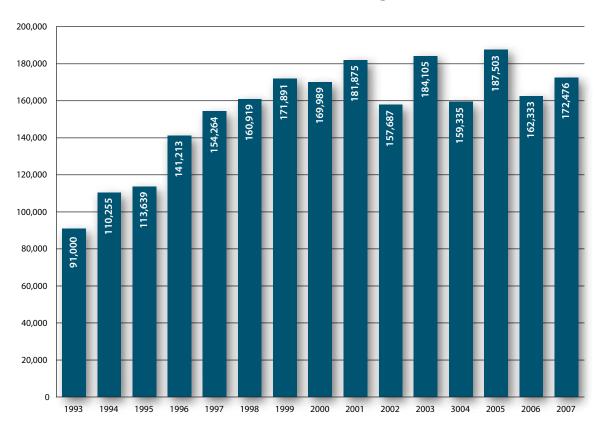


Exhibit II-7 1993-2007 California PWC Accident Statistics

| Year | Number of<br>Accidents | Number of<br>Injuries | Number of<br>Fatalities | Amount of<br>Property Damage |
|------|------------------------|-----------------------|-------------------------|------------------------------|
| 1993 | 248                    | 178                   | 5                       | \$306,900                    |
| 1994 | 257                    | 178                   | 7                       | \$294,800                    |
| 1995 | 353                    | 226                   | 6                       | \$579,550                    |
| 1996 | 385                    | 298                   | 8                       | \$508,300                    |
| 1997 | 391                    | 276                   | 8                       | \$709,450                    |
| 1998 | 229                    | 161                   | 9                       | \$384,050                    |
| 1999 | 264                    | 215                   | 6                       | \$447,550                    |
| 2000 | 293                    | 238                   | 6                       | \$436,650                    |
| 2001 | 273                    | 216                   | 5                       | \$465,200                    |
| 2002 | 253                    | 188                   | 7                       | \$524,250                    |
| 2003 | 261                    | 200                   | 12                      | \$483,500                    |
| 2004 | 186                    | 148                   | 7                       | \$293,300                    |
| 2005 | 203                    | 155                   | 7                       | \$467,250                    |
| 2006 | 180                    | 145                   | 5                       | \$389,475                    |
| 2007 | 204                    | 172                   | 9                       | \$356,250                    |

Although total accidents involving water skiing have been declining since 2003 when there were 161 accidents, they increased 15% compared with 2006 totals. Fatalities associated with water skiing activities increased from two in 2006 to seven in 2007, which is the highest number of fatalities since 1979. Fatalities in which the operator of the towing vessel or another vessel contributed to the accident accounted for five of the seven fatalities. Specific behaviors associated with operator error are discussed later in this chapter.

#### **Time and Location**

A total of 96% of water skiing accidents occurred between May and September. 67% of water skiingrelated accidents occurred in Northern California and 33% in Southern California. The most popular bodies of water were lakes (80%), followed by the Sacramento-San Joaquin Delta (7%) and the southern coast (6%).

# **Vessel Type and Length**

Of the vessels involved in water skiing accidents, (92%) were open motorboats, followed by PWC (7%).

# Type and Cause of Accidents

**Exhibit II-9** provides a breakdown of the 2007 reported water skiing activities by situation.

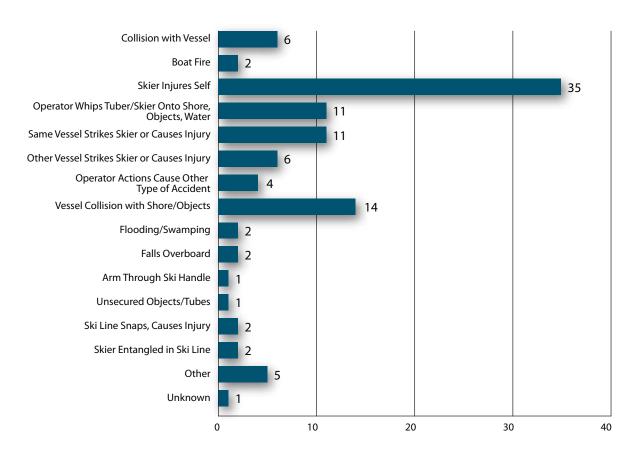
Water skiing accidents, in which the skier was responsible for the accident, accounted for 34% of the accidents. These accidents most often involved inexperienced skiers, who were injured while attempting to stand up or who attempted maneuvers beyond their experience level.

A variety of unsafe behaviors, both by operators towing skiers and also by other vessels operating in the vicinity of vessels towing skiers accounted for 66% of accidents. These accidents, in which the operator's unsafe behavior contributed to the accident, increased from 36% in 2006.

**Exhibit II-8** 2007 California PWC-Related Accidents by County

| County          | Accidents | Injuries | Fatalities | Property<br>Damage |
|-----------------|-----------|----------|------------|--------------------|
| Amador          | 2         | 1        | 0          | \$550              |
| Butte           | 4         | 3        | 0          | \$5,300            |
| Calaveras       | 6         | 3        | 1          | \$4,150            |
| Contra Costa    | 3         | 2        | 0          | \$5,550            |
| El Dorado       | 3         | 4        | 0          | \$2,000            |
| Fresno          | 4         | 2        | 0          | \$8,500            |
| Kern            | 13        | 10       | 0          | \$18,200           |
| Lake            | 4         | 2        | 0          | \$17,500           |
| Los Angeles     | 9         | 6        | 1          | \$14,400           |
| Madera          | 8         | 5        | 0          | \$28,850           |
| Mariposa        | 1         | 0        | 0          | \$1,700            |
| Mendocino       | 1         | 2        | 0          | \$3,500            |
| Merced          | 3         | 0        | 0          | \$9,050            |
| Napa            | 8         | 5        | 1          | \$7,900            |
| Nevada          | 1         | 0        | 0          | \$1,300            |
| Orange          | 6         | 3        | 0          | \$24,400           |
| Placer          | 8         | 7        | 1          | \$7,100            |
| Riverside       | 23        | 24       | 0          | \$34,800           |
| Sacramento      | 6         | 5        | 0          | \$8,900            |
| San Bernardino  | 17        | 17       | 0          | \$31,950           |
| San Diego       | 20        | 19       | 1          | \$31,900           |
| San Joaquin     | 7         | 6        | 1          | \$16,700           |
| San Luis Obispo | 5         | 4        | 0          | \$18,000           |
| San Mateo       | 1         | 1        | 0          | \$0                |
| Santa Clara     | 4         | 4        | 0          | \$0                |
| Shasta          | 4         | 4        | 1          | \$3,000            |
| Stanislaus      | 13        | 12       | 1          | \$22,250           |
| Sutter          | 1         | 1        | 0          | \$1,700            |
| Tehama          | 3         | 4        | 1          | \$300              |
| Trinity         | 1         | 1        | 0          | \$0                |
| Tulare          | 3         | 3        | 0          | \$10,500           |
| Tuolumne        | 7         | 7        | 0          | \$4,600            |
| Yolo            | 2         | 3        | 0          | \$11,100           |
| Yuba            | 3         | 2        | 0          | \$600              |
| Totals          | 204       | 172      | 9          | \$356,250          |

Exhibit II-9 2007 California Water Skiing Accidents by Situation



Consistent with other years, the most common situations involved:

- Vessels not keeping appropriate distances from drifting vessels involved in assisting fallen skiers, thereby running over ski lines.
- Operators commencing operation of vessels while ski lines are still in the water, causing the lines to become entangled in the propellers.
- Operating too close to the shoreline while towing tubes, not realizing that the tubers cannot maneuver the tubes and causing them to strike the shoreline.
- Operators towing tubes in donuts to provide the tubers with more exciting rides, but instead, running over the ski lines and pulling the tubes into the propellers.

- Operators failing to notice that other vessels are towing skiers, causing collisions with skiers.
- Operators looking over their shoulders, watching skiers instead of relying on the observers, resulting in collisions with other vessels or the shoreline.
- Operators failing to secure tubes, resulting in their blowing overboard, tangling people in lines or wakeboards so that they fall off racks and injure people.
- Operators failing to make sure skiers are wearing life jackets, as required by California law.

# E. Accidents Involving Youths

# **Background**

Throughout this report, "youths" refers to persons under 18 years of age.

From 1987 through 1997, California law required a person to be at least 12 years of age to operate a craft of more than 10 HP. If an operator was under 12, a person 18 years of age or older had to be on board the vessel.

In 1998, the law changed. The operator of a craft of more than 15 HP is required to be at least 16 years of age. Persons 12-15 may operate if a person of at least 18 years of age is attentively supervising aboard the vessel.

Note: Exceptions to this law include the operation of a sailboat that does not exceed 30 feet in length or a dinghy used directly between a moored boat and the shore, or between two moored boats.

# **Findings**

During the 2007 boating season, youth operators were involved in 7% of all accidents, 10% of injuries and 7% of fatalities.

**Exhibit II-10** presents a 15-year summary for youth operator accident statistics.

The number of accidents involving youths had remained consistent for three years prior to the 1998 boating season. However, since the previously mentioned operator age limit increase took effect in January 1998, there has been a substantial decrease in the number of accidents involving operators under 16 years of age. The total number of accidents involving all youth operators is 52% lower than the number reported in 1997.

Of the 69 youth operators involved in accidents, 30 (43%) were under the age of 16, and four were under the age of 12. Of the operators younger than 16 years of age, 80% were operating illegally by either not having an adult on board, or, when the operator

**Exhibit II-10**1993-2007 California Youth Operator Accidents

| Year | Number of<br>Operators | Number of<br>Accidents | Number of<br>Injuries | Number of<br>Fatalities |
|------|------------------------|------------------------|-----------------------|-------------------------|
| 1993 | 77                     | 67                     | 51                    | 7                       |
| 1994 | 99                     | 86                     | 63                    | 3                       |
| 1995 | 135                    | 110                    | 80                    | 1                       |
| 1996 | 136                    | 117                    | 95                    | 3                       |
| 1997 | 140                    | 120                    | 87                    | 2                       |
| 1998 | 81                     | 70                     | 51                    | 6                       |
| 1999 | 73                     | 63                     | 56                    | 2                       |
| 2000 | 94                     | 80                     | 72                    | 2                       |
| 2001 | 107                    | 88                     | 92                    | 0                       |
| 2002 | 90                     | 79                     | 68                    | 2                       |
| 2003 | 99                     | 83                     | 72                    | 8                       |
| 2004 | 65                     | 51                     | 44                    | 2                       |
| 2005 | 57                     | 46                     | 42                    | 0                       |
| 2006 | 63                     | 55                     | 52                    | 2                       |
| 2007 | 69                     | 58                     | 49                    | 4                       |

was younger than 12, operating the vessel under any circumstance. The percentage of underage operators operating illegally has increased from 63% in 2006.

# Type and Cause of Accidents

Collisions (72%) were the primary type of accident involving youth operators, followed by persons struck by boats (9%) and falls overboard (7%).

The most common cause of accidents involving youth operators was operator inexperience (67%). Operator inexperience was a factor in only 33% of accidents involving operators of all ages. Excessive speed was a factor in 57% of accidents followed by operator inattention (53%).

# Vessel Type

The vast majority (81%) of youth operators involved in accidents were operating PWC. An additional 13% were operating open motorboats.

# **Additional Safety Concerns**

Very young children riding on PWC can present serious safety problems. While riding in front of an

operator, a child has easy access to the vessel controls and can easily manipulate them. Such situations have resulted in accidents. Seating a young child behind a PWC operator is unsafe as well, because he or she can easily fall overboard.

Additionally, in a previous year, a lanyard was left attached on a drifting, unoccupied PWC. A small child playing in the area climbed aboard, pressed the start button and shot across the water, striking a swimmer, who later died of serious head injuries.

# F. Fatal Boating Accidents

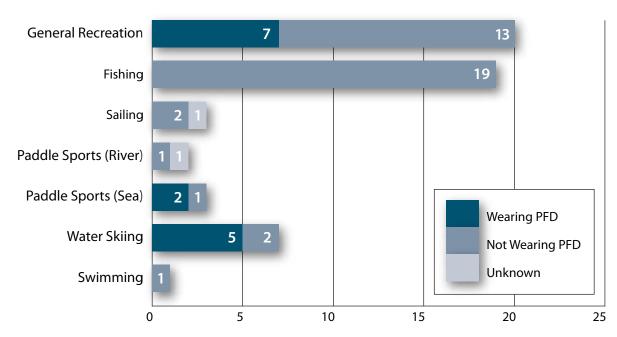
# **Findings**

In 2007, 55 fatalities occurred on California waterways. This represents 5.7 fatalities per 100,000 registered vessels. The number of fatalities increased from 42 in 2006 (4.7 per 100,000 registered vessels).

# Type and Cause of Accidents

The most common type of fatal accident involved vessels capsizing (35%), falls overboard (25%) and collisions with other vessels (13%). Operator

**Exhibit II-11** 2007 California Boating Fatalities by Type of Activity and Life Jacket Usage



inattention (44%), overloading/improper loading (29%), operator inexperience (25%) and excessive speed (18%) were the primary causes of fatalities. Of the fatalities 71% of the victims drowned. Of that group, 87% were not wearing a life jacket.

Fatalities involving overloading or improper loading rose from two in 2006 to 16 in 2007, the largest number that the department has on record. Nearly all vessels involved were less than 16 feet in length—most were 12 feet or less in length. Some vessels were overloaded with people or equipment which exceeded the capacity. Other situations involved passengers moving unsafely around in vessels causing stability issues.

#### **Time and Location**

Fatalities occurred in consistent numbers from March through August. Figures show that 45% of fatalities occurred during the off-season of October through April. 53% of fatalities occurred on a Saturday or Sunday, 55% of fatalities occurred on lakes, 16% occurred on oceans/bays, 5% occurred on the Colorado River, 16% on other rivers throughout the State, and 7% occurred in the Sacramento-San Joaquin Delta region. Northern California had 60% of fatalities compared with 40% in Southern California.

# **Vessel Type and Length**

Open motorboats accounted for 50% of the vessels involved in fatal accidents, followed by PWC (21%), paddle craft (14%), cabin motorboats (7%) and sailboats (5%). The majority of vessels involved in fatal accidents were less than 26 feet in length (72%).

# **Operator Profile**

The 31-40 age group was involved in more fatalities than any other age group. Of the 55 operators involved in accidents, 98% were males.

# **Victim Activity**

**Exhibit II-11** presents boating fatalities by type of activity and life jacket usage.

# **Fishing-Related Fatalities**

Fishing-related fatalities typically account for about one of every three fatalities in California each year and are of particular concern to the department.



In 2007 these accidents accounted for 19 (35%) of boating fatalities.

A total of 15 of the 19 fatalities occurred between October and April, when the water was cold. A number of victims were wearing heavy clothes which hampered their swimming ability. Most (89%) drowned and of that group, none were wearing life jackets.

The majority of the fishing-related fatalities occurred as a result of vessels capsizing (68%) or victims falling overboard (26%). A total of 53% involved either overloading or improper loading of vessels. Additionally, testing for alcohol impairment was conducted on 17 victims and of that group, 53% were found to be alcohol related.

Victims of fishing-related accidents (47%) were boating on southern lakes followed by northern lakes (26%), northern rivers (21%) and the Sacramento/San Joaquin Delta (5%).

# **Paddle Sport Fatalities**

Five victims died while engaged in paddle sport activities in 2007. Two victims died on rivers during whitewater or swift-water boating activities, and three died while in ocean waters.

Capsizing was the most common type of these accidents, and inexperience and hazardous weather and water conditions were the main causes.

All of the victims drowned. Two of the five were wearing their life jackets. Strong currents pulled them beneath the surface of the water despite their jackets being worn.

# G. Alcohol Use and Fatal **Boating Accidents**

### **Background**

In 1987, state law made it illegal to operate a recreational vessel with a blood alcohol level of 0.10% or more. In 1991, the legal limit was decreased to 0.08%. Furthermore, a "boating under the influence" conviction now appears on Department of Motor Vehicles records and can be used to suspend or revoke a vehicle driver's license.

For the purpose of this analysis, only fatal boating accidents were analyzed for alcohol relatedness. A person with a blood alcohol level of 0.035% or higher is assumed to be "under the influence." The National Transportation Safety Board has determined that when the concentration of alcohol in a person's bloodstream reaches this level, noticeable changes in judgment and operational competency occur.

As discussed earlier, testing was not conducted on all victims due to delayed accident reporting or delayed body recovery, which can alter blood alcohol levels.

# **Findings**

Of the 55 fatalities, blood alcohol information was available in 44 of the cases. Of these 44 cases, 20 victims or operators (45%) had blood alcohol levels equal to or greater than 0.035%.

# **Type and Cause of Accidents**

The majority of alcohol-related boating fatalities were the result of vessels capsizing (45%), or falls overboard (30%). Operator inattention (50%), overloading/improper loading (45%), and operator inexperience (25%) were the leading causes of accidents. (Some accidents had more than one cause.) Of the 80% of the victims that drowned, none were wearing a life jacket.

# Type of Vessel

A total of 22 vessels were involved in these accidents. The two most common types of vessels involved were open motorboats (59%) and cabin motorboats (14%). Of all vessels involved, 82% were less than 26 feet in length.

#### **Time and Location**

Of the 20 alcohol-related fatalities, 55% occurred on weekends; 50% occurred in Northern California and 50% in Southern California.

#### **Activity**

Alcohol-related fatalities (45%) took place during fishing activities. 45% took place during general recreation activities, one while swimming, and one during water skiing activities.

#### **Profile of Intoxicated Boater**

An examination of the 20 alcohol-related fatalities revealed that ten were operators, eight were passengers, one was a swimmer and one was a water skier. As in previous years, several of the victims who were not operators contributed to their deaths due to their level of alcohol consumption.

These findings related to intoxicated passengers or other occupants were consistent with findings from other years. Persons other than the operator who are under the influence often put themselves in dangerous positions in the boating environment, engaging in activities such as leaning over or sitting on gunwales or jumping from one vessel to another. Additionally, intoxicated passengers often stand in or move about in vessels, causing them to fall overboard, or the vessel to capsize, placing all aboard in danger. Persons also swim too close to propellers, causing danger to themselves.

These situations underscore Cal Boating's long-held view that a sober operator does not ensure passenger safety. Intoxicated persons in or around vessels are exposed to dangers that would not affect the safety of intoxicated passengers in a vehicle. The "designated driver" concept, which is popular in some boating safety literature, has its roots in automobile safety where the possibility of falling overboard and drowning (or swimming too close to the propeller) is not a factor. Therefore, based upon the findings of these fatalities and others from previous years, Cal Boating recommends that neither operators nor passengers drink alcoholic beverages while boating.

### Section 3:

# **Boating Law Enforcement Programs**

n support of the California Department of Boating and Waterways' mission to provide leadership in promoting the public's right to safe and enjoyable boating on California waterways, the Enforcement Unit's primary objectives are:

- To provide for adequate boating law enforcement through local agencies
- To ensure that the enforcement of California boating laws is uniform throughout the State

The Enforcement Unit meets these objectives through programs that provide officer training and financial aid to local boating law enforcement agencies.

# A. Financial Aid Program (Subvention Program)

The purpose of the Boating Safety and Enforcement Financial Aid Program is to provide state financial aid to local governmental agencies whose waterways have high usage by transient boaters and an insufficient tax base to fully support a boating safety and enforcement program. The program is intended to augment existing local resources for boating safety and enforcement activities on California waterways.

These funds also support enforcement of state laws, regulations and local ordinances affecting boating activities, vessel inspection, supervision of water





events, search and rescue operations, and recovery of drowned bodies.

During 2006/2007, Cal Boating allocated 10.6 million to 36 counties and two cities for boating law enforcement operations including maintenance, equipment, and personnel costs.

**Exhibit III-1** presents a summary of services supported during this period by the financial aid program.

Boating law enforcement officers provide important safety education to the boating public. Cal Boating's partnerships with the law enforcement community provide the department with an excellent resource to help educate and communicate with the recreational boater.

In FY 2006/07, law enforcement officers provided boating safety education to nearly 50,000 vessel operators, primarily by means of public contact and verbal warnings, which act as teaching tools to educate boaters and help prevent accidents.

# **Exhibit III-1** Services Supported by the 2006/07 Financial Aid Program

| Regulation Enforcement              |        |
|-------------------------------------|--------|
| Verbal Warnings                     | 44,553 |
| Citations                           | 4,316  |
| Physical Arrests                    | 426    |
| Boater Assistance                   |        |
| Persons Assisted                    | 20,417 |
| Vessels Assisted                    | 4,944  |
| Accident Investigations             | 299    |
| Search and Rescue Operations        |        |
| Searches and Recoveries             | 739    |
| Education/Safety                    |        |
| Vessel Inspections                  | 31,534 |
| Organized Boating Event Supervision | 233    |

# B. Marine Law Enforcement **Training Program**

In California, boating law enforcement is performed at the local level. This unique and efficient method of serving the recreational boater can present challenges at times.

To ensure that the boating law is being properly interpreted and enforced, Cal Boating offers an extensive marine law enforcement training program. This program services over 100 public agencies tasked with providing public safety on the water. As a result, boaters can expect uniform law enforcement on waterways throughout the state.

In 2007, Cal Boating conducted 27 Commission on Peace Officer Standards and Training (POST) certified classes throughout the state and trained 471 marine patrol officers. Officers learned how to apply a multitude of skills emphasizing their roles of maintaining safety on public waterways. The courses are designed for law enforcement personnel and are taught by law enforcement specialists who bring great expertise and credibility to the training program.

Recent improvement to the Accident Investigation/ Reconstruction (new Vessel Accident Report manual) and Boating Intoxication Enforcement (new Boating Under the Influence video) continue to keep California on the cutting edge of marine law enforcement training.

The department offers law enforcement training classes in the following areas:

- Basic Boating Safety and Enforcement
- Boating Accident Investigation / Reconstruction
- Boating Intoxication Enforcement
- Boating Basic Skills Training
- Coastal Piloting and Navigation
- Marine Firefighting
- Personal Watercraft
- Seamanship Rescue Boat Operations

# Section 4:

# **Boating Safety Education Programs**

The Safety and Education Units have two primary objectives to support the California Department of Boating and Waterways mission:

- To provide accessible boating safety education for youths and adults
- To educate and protect youth operators by developing and distributing boating and aquatic safety material through California schools

Cal Boating relies on partnerships with several organizations (educational institutions, aquatic centers, the U.S. Coast Guard Auxiliary and the U.S. Power Squadrons) to provide boating safety education. It provides educational institutions with free course materials on boating and aquatic safety. Aquatic centers that offer on-the-water safety education are eligible for department grants and scholarships. Last year, these partnerships provided over 500,000 individuals with boating safety education.

# A. Educational Outreach to School-Age Children

# **AquaSMART**

Cal Boating developed the *AquaSMART* curriculum to educate school-age children about aquatic and boating safety. The elementary school program has a three-part series for K-2, 3-5, and 6-8 grades. Course materials cover ten basic boating and aquatic safety lessons.

Each curriculum package guides students through the ten *AquaSMART* lessons. The program series consists of a video/DVD and teacher's guide with reproducible student worksheets for each level. For grades K-2 and 3-5, the video/DVD is also available in Spanish along with a set of reproducible Spanish student worksheets. The teacher's guides also contain charts indicating how the lessons fit



into the California State Curriculum Standards, recommended reading lists and lists of additional media resources.

Curriculum materials are made available to schools, youth groups, aquatic centers and other educators at no cost.

Nearly 250,000 elementary school students benefitted from the *AquaSMART* education programs in 2007.

Cal Boating also disseminates the *AquaSMART Boating* program for high school students. Key safety concerns identified by accident statistics are incorporated into the curriculum. Four types of boating are addressed: personal watercraft, power boating, sailing and paddling. The course is available to schools, aquatic centers and youth organizations which served about 15,000 youths in 2007.

# AquaSMART Live!

AquaSMART Live!, Cal Boating's companion program to the AquaSMART series for elementary schools, is a professionally produced multimedia program designed to teach students how to stay safe in and around California waterways. Splasher the Frog hosts the show. This show appears at schools as general assemblies or as a reward for a school winning our annual poster contest. Besides congratulating the winner and the school, Splasher shows students what can happen if they fail to practice safety in and around the water by using the AquaSMART Stunt Dummies. In 2007, the program served nearly 80 schools statewide and reached approximately 48,000 children.

There are two distinct shows for grades K-3 and 4-6. The show for K-3 grades uses puppet stunt dummies to demonstrate to the children what can happen when we do not play safe in and around the water. The show for grades 4-6 is in a game show format where two teams compete for prizes while learning how to stay safe in and around the waters. These shows give students who might not be using the AquaSMART curriculum, exposure to the most important parts of water safety.

#### **Poster Contest**

Public and private school children in the K-8 grade levels are invited every year to participate in Cal Boating's Safe & Wise Water Ways poster calendar contest. It is the department's philosophy that safety

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lessons learned and practiced at an early age serve to protect individuals throughout their lifetime. A poster contest designed to promote boating and aquatic safety among children is a good way to convey such lessons.

A contest advertisement is sent directly to all California elementary and middle schools. Entry

information is also posted on our the department Web site, www. BoatSmarter. com, and promoted by local radio and/ or television stations. Nine statewide winning



entries are chosen (one for each grade level) and featured on an annual poster calendar produced and distributed by Cal Boating.

Corporate sponsors contribute to the success of this program by providing awards for the winners. In 2007, sponsors included BoaterExam.com, Kawasaki, Northern California Marine Association, Radio Disney, Greater Sacramento Safe Kids, Southern California Marine Association, UC Davis Partners in Prevention and Yamaha. Prizes are distributed when department representatives and the boating safety puppet show—AquaSMART Live! personally congratulates the poster contest winners.

The uniqueness of the poster contest is that it allows numerous organizations to work together as a group to reach one goal—boating and water safety. The State provides the information to schools, the teachers become the program directors and children have the opportunity to become teachers. Lastly, although this program is not mandatory, many teachers find it important enough to incorporate it into their already demanding curriculum requirements.

The award-winning poster contest is now in its 15th year.

#### **Interactive Tools**

Cal Boating uses SeaMore and Sea Lily, two interactive robotic boats, to communicate boating and water safety information to children and adults at safety fairs, schools or boating events. These boats are available on loan to boating safety organizations and marine law enforcement agencies.

# B. Educational Outreach to the General Public

### **Aquatic Center Grant Program**

Cal Boating provides grant monies to aquatic centers throughout the state to enhance their programs. Grants can be used either for scholarships or for the purchase of equipment to be used in boating and education classes. This grant program allows the department to increase the number of boaters who receive hands-on boating safety training.

Aquatic centers, operated by universities, cities, counties, and nonprofit organizations, provide on-the-water boating safety education in kayaking, canoeing, water skiing, power boating, sailing, windsurfing and personal watercraft operation. These programs target university students, the general public, persons with disabilities and disadvantaged youths.

During the 2006/07 fiscal year, Cal Boating allocated \$736,000 in grants to 33 aquatic centers, which then provided approximately 80,000 individuals with hands-on aquatic and boating education.

# **Home Study Course**

California Boating: A Course for Safe Boating is a free correspondence course. This course is designed for home study, allowing students to progress at their own pace. This comprehensive course covers state and federal boating law, rules of the road, boat handling, required and recommended equipment, navigational aids and other topics.

The course contains an optional exam to be completed on a Scantron form and mailed to Cal Boating for grading. Those who pass the course with



a score of 80% or better are awarded with certificates that are recognized by many insurance companies for boat insurance discounts. In 2007, about 30,000 copies of California Boating were distributed to the general public. About 2,500 exams were completed and mailed to the department, with a passing rate of 95%.



Many boating organizations, marine dealers and aquatic centers use the *California Boating* course with their audiences as an introduction to safety for new boaters. Marine law enforcement units also like to hand them out waterside during their patrols and at community service events.

# **National Safe Boating Week**

Each year, the President and the Governor proclaim the week before Memorial Day as National Safe Boating Week. Cal Boating organizes a number of boating safety events during this week designed not only to promote safe boating, but also to promote the sport of boating. Activities featured during this week include:

- Highlights of annual boating accident statistics
- News releases featuring boating safety tips
- Interviews with the media
- Life jacket trade-ins for youth
- Community service programs on ten radio stations in Sacramento, San Francisco, Los Angeles and San Diego running either a half hour or full hour program dedicated to speaking about accident statistics, boating and alcohol and carbon monoxide poisoning prevention.
- Partnering with aquatic centers throughout the state to put on boating safety events including on-the-water safety instruction.

# Tri-State Boating Safety Fair

The Arizona Game and Fish Department, the California Department of Boating and Waterways and the Nevada Department of Wildlife held their Fourth annual Tri-State Boating Safety Fair on May 6, 2007. The mission of the safety fair is to promote safe and knowledgeable recreational boating on the Colorado River through the combined educational and enforcement resources of Arizona, California and Nevada. It introduces visitors to the different state laws that govern use of the Colorado River. Visitors also learn about boating dangers, such as excessive speed, alcohol abuse on the water and carbon monoxide poisoning. Activities at the fair include: an opportunity to win a speedboat, search and rescue demonstrations, distribution of boating safety bags and courtesy vessel safety checks.



The following also took place in conjunction with the 2007 Tri-State Boating Safety Fair:

- Beverage holders and sunglasses clip holders were distributed with the www.BoatColoradoRiver.com Web site imprinted on them
- Over 100 life jackets were available for life jacket trade-in (thanks to our corporate sponsors: Kawasaki, Brunswick and Boat Ed)
- Boating safety bags were distributed at 27 different launch ramps along the Colorado River
- Promotion of the safety fair and boating safety messages were transmitted by various media outlets: radio (promotional placements and on-site live feeds), television, print media, internet (website buttons directing web users to the Tri-

State boating safety site were placed on a myriad of agencies' websites) and promotional flyers.

This boating safety fair is a great example of how public and private sectors can partner to benefit the recreational boaters of the Colorado River. As we all work together, boating safety is promoted and the Colorado River becomes a safer place to recreate.

#### **Boat Shows**

California state law does not require boaters to be licensed, nor does it require them to take a boating safety course. As a consequence, a significant number of accidents and deaths occur. This is why boat shows are so critical.

Boat shows provide an excellent arena in which Cal Boating and law enforcement officials can reduce accident and fatality numbers by educating the public on boating and water safety.

In 2007, Cal Boating attended over 15 events and reached over 30,000 boaters. Boaters are presented with a variety of boating safety messages, promotional materials, and brochures.

# Spanish Outreach

In order to better serve California's growing spanishspeaking population, Cal Boating continues to distribute spanish-language boating and water safety resources. Boaters can order copies of Spanish translations of specific department publications, or view and download them on the department's Web site, at www.dbw.ca.gov.

Visitors to the site can also access information on the navigational "rules of the road," recent changes to boating law, how to register a boat, marine pollution prevention, canal safety, and more.

In addition, Cal Boating also has free Spanishlanguage curriculum materials which meet California curriculum standards for the K-2 and 3-5 grade levels. Available to any school, the curriculum contains a teacher's guide, reproducible activity sheets, and a video or DVD.

The Sacramento Univision television station gave Cal Boating the opportunity to relay boating safety information to the Spanish-speaking community. Live feed interviews took place during the summer months.



## **Safety Media Campaign to Boaters**

## Campaign builds on successful theme: If It's Your Boat, It's Your Responsibility

The multi-media boating safety campaign runs May to October in Northern California and year-round in Southern California. Cal Boating continued a successful "Responsibility" campaign, with the message: "If It's Your Boat, It's Your Responsibility." Building on the accomplishments of a new campaign in 2006, new billboards, posters and radio ads were created addressing boater responsibility, education, hazardous effects of operator inattention and special proactive messages emphasizing Boating Under the Influence (BUI). Enforcement of these messages aired throughout the boating season with increased presence prior to all popular three-day holiday weekends (Memorial Day, Independence Day and Labor Day).

Accident victim testimonials increased in the 2007 radio campaign and aired on 57 radio stations statewide. Cal Boating also continued promoting the www.BoatSmarter.com Web site and encouraged all boaters to share their stories.

The program dispatched mobile billboards at popular launching ramps and marinas and continued to place all-weather posters statewide at launching ramps, park entrances, and fuel docks reminding boaters to be responsible on the water.

### **Television Boating Safety Promotion** for Popular Holiday Weekends

In March 2007, Cal Boating partnered with the San Diego area XETV, Fox 6 News in the Morning to heighten awareness of boating and water safety in the San Diego area with a Spring Break Safety

Promotion. The newscast promoted proper life jacket fitting, hands-on boating safety classes, water rescues and encouraged viewers to stop by for free life jackets. In addition to this, the television station produced and aired 30 "Boating Safety Announcements" that ran during the morning newscast throughout the week to drive viewers to Fox6.com to take the Cal Boating online safety quiz and be eligible for an angler prize provided by Anglers Marine. "Safety Totes" were available for "purchase" (bonus point redemption, no cash value) online through the "Couch Potato" viewer loyalty program. All 450 totes were redeemed by "Couch Potato" members.

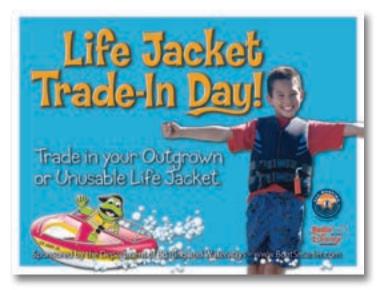
Additional successful television "Safety Promotion" partnerships with news anchor personalities recording PSAs were carried out with Redding TV station KRCR for Memorial Day weekend and then with Sacramento TV station KMAX for the 4th of July holiday.

#### Internet

All media outreach directly prompted viewers and listeners to learn more about boating safety and education on the department's Web sites, www.dbw.ca.gov, www.BoatSmarter.com, and www.BoatResponsibly.com.

These sites garnered 89,808 visits, with 65,165 being unique page views throughout the year. Radio and televisions also added a Cal Boating presence with banners, logos and links from their Web sites to the department's. In addition, the stations included 2,369 Web site streaming units of the safety messages over the boating season from their websites.





### **Cal Boating's Safety Team**

### **Media Campaign Outreach Events/** and Safety Team

Cal Boating's Safety Team appeared at over 28 water and recreational boating events statewide. The Safety Team showcased Cal Boating's Responsibility campaign by partnering with radio stations throughout California. Graphics on the Safety Team's vehicle increased awareness while generating excitement at the events. At each event, boaters registered to win major prizes by answering boating safety questions. Over 3,000 California boaters participated in the safety quiz. The prizes, donated by Forever Resorts, were two getaways on a houseboat, and a Kawasaki Jet Ski from Roseville Cycle Center. By registering, boaters also received prizes such as life jackets (over 1,000 given away), sunscreen, visors, and other educational reminders to take responsibility and boat safely.

Through the Boating Safety Team program, the department received approximately \$240,000 worth of media and promotional exposure for a fraction of that amount in expenditures. Nearly 6,000 personal points of contact with members of the public-interaction through safety quiz contests, informational brochures, and collateral pick-up, etc., occurred during the program.

#### Life Jacket Use

#### **Life Jacket Loan Program**

Cal Boating continues the life jacket loan program aimed at increasing the use of life jackets by everyone in the Greater Sacramento area community who plan a boating or other waterside activity. The life jacket loan program promotes the use of life jackets by offering free short-term life jacket use for the public. Cal Boating has partnered with fire stations in the Greater Sacramento area to house and check out life jackets to the public. Fire stations have proved to be convenient locations where residents can go to borrow life jackets. In 2007, there were 34 loaner locations participating in the program. A current list of loan locations can be found on Cal Boating's Web site at www.dbw.ca.gov/BoaterInfo/LifeJacket.aspx.

#### T-shirt Program

Cal Boating continues its T-Shirt Program, aimed at increasing the use of life jackets by children. Marine enforcement units, U.S. Coast Guard Stations, U.S. Coast Guard Auxiliary Flotillas, and U.S. Power Squadrons are supplied with t-shirts for children. The shirts are used to reward children under the age of 12 found wearing their life jackets while boating. This popular program recognizes safe behavior and reinforces continued use of life jackets by this target group.

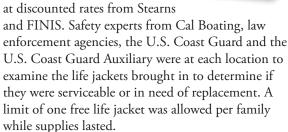
#### Life Jacket Trade-In

The life jacket trade-in program successfully continued for National Safe Boating week of 2007. The department partnered with Radio Disney, CBS Radio and 13 Sam's Club stores statewide to host consecutive trade-ins. Life jackets were offered free to the first 50 persons at each store who brought in children's life jackets that were outgrown or were deteriorated and unusable during a twohour window. Radio Disney and CBS Radio aired



promotion for the events on their families of stations and held live remote broadcasts at five of the stores during the event.

Emphasis was placed on ensuring children's life jackets were the right size, fit properly and were in good condition. Children's life jackets were obtained



BOATING LAW

Over 400 new life jackets were exchanged for those found to be unserviceable during these trade-in events. Many of them were in good condition, but had been outgrown. These still-usable life jackets were channeled into local life jacket programs for loan or trade. Altogether, 650 life jackets were distributed to the benefit of children statewide.

#### Get Hooked on H<sub>2</sub>O

In 2007, Cal Boating partnered with AM 1470 Radio Disney, CBS Radio and Togo's restaurants to remind their collective clients in Northern California to Get Hooked on H2O and Boat Smart from the Start...Wear Your Life Jacket and Avoid Alcohol When Boating.

During the months of May through September, radio stations KNCI and AM 1470 Radio Disney ran radio announcements over three-week spans for the major holidays of Memorial Day, Fourth of July and Labor Day.

Fifty locations in the Greater Sacramento area offered the pamphlet, ABC's of California Boating Law, to their customers and a Street Posse promoted safe boating at several public locations.

An estimated 12 million impressions were made on clients as the messages traveled the airwaves and were viewed at purchase points.

#### **Kid Casters**

For the fifth year, Cal Boating teamed with Radio Disney to sponsor "Kid Casters," a casting call at the International Sportsmen's Expo in Sacramento for children 14 and under to audition to produce boating safety messages for the airwaves. Kids 14 and under were invited to read a prepared boating safety message during the Expo. From the group of participants a few were chosen to record real boating safety messages that were then aired through the summer months by Radio Disney stations in California.

#### Safe Kids Coalition

The department participates on the Greater Sacramento Safe Kids Coalition under the Drowning Prevention subcommittee. As a river city with a number of lakes and the Sacramento-San Joaquin Delta in close proximity, Sacramento has a need to protect its children from drowning when boating or recreating near the water. Cal Boating provides educational materials for outreach to the community and expertise on open water activities and incidents.

### **California Clean Boating Network**

Cal Boating continues to participate in the California Clean Boating Network (CCBN). This network consists of a collaboration of government, environmental, business, boating and academic organizations working to increase and improve clean boating education efforts in California. Through the exchange of information and consideration of new trends in clean boating practices, CCBN members increase their ability to educate the boating public about clean boating practices.

# **Boating Clean and Green Program**

The Boating Clean and Green Campaign is a statewide boater education and technical assistance program conducted by the California Department of Boating and Waterways and the California Coastal Commission that



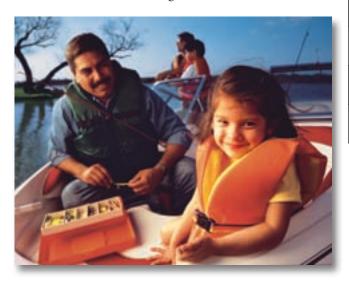
educates boaters about environmentally and safe sound boating while assisting marinas and local governments in identifying the need for and installing pollution prevention services for boaters.

Through partnerships with marine businesses, boating associations, environmental and non-profit groups, state and local governments, including the Keep the Delta Clean Program and Dockwalker program, the Campaign has been successful in promoting safe environmental boating practices.

# C. Public Information **Education through Publications**

In 2007, Cal Boating distributed 1.2 million copies of boating safety literature to the public. The Public Information Unit publishes and distributes more than 50 different boating safety publications. The publications cover a variety of topics emphasizing boating safety on California waterways and are also available on Cal Boating's Web sites, www.dbw. ca.gov or www.BoatSmarter.com.

Materials focus on subjects such as key safety issues for individual waterways, required equipment and operational laws. The unit mails these publications directly to individuals and provides various organizations with materials for distribution. Department representatives also attend numerous safety fairs and boat shows, distributing literature and answering questions. Currently, the Department of Motor Vehicles mails Cal Boating safety brochures with each new vessel registration and each renewal.



# D. Abandoned Watercraft **Abatement Program**

Cal Boating administers the Abandoned Watercraft Abatement Fund Program for the removal of abandoned watercraft and substantial navigational hazards from California's waterways. These funds are made available to the local public agencies for the removal, storage and disposal of navigational hazards. For fiscal year 2006/07, a total of \$450,000 was allocated to four local agencies. Exhibit IV-1 shows the funds granted to local public agencies for fiscal year 2006/07.

# **Exhibit IV-1 Funds Granted to Local Agencies** for Abandon Watercraft Abatement - FY2006/2007

| Agency Name                             | Number of<br>Hazards | Amount       |  |  |  |  |
|---|----------------------|--------------|--|--|--|--|
| Richardson Bay<br>Regional Agency       | 24                   | \$92,000.00  |  |  |  |  |
| Contra Costa County<br>Sheriff's Office | 46                   | \$140,000.00 |  |  |  |  |
| City of Santa Barbara                   | 46                   | \$45,000.00  |  |  |  |  |
| City of Brisbane                        | 2                    | \$7,000.00   |  |  |  |  |
| Ventura County                          | 6                    | \$20,000.00  |  |  |  |  |
| Marin County Sheriff's Department       | 8                    | \$23,000.00  |  |  |  |  |
| San Diego Port District                 | 11                   | \$78,000.00  |  |  |  |  |
| San Mateo County<br>(Oyster Pt. Harbor) | 3                    | \$10,000.00  |  |  |  |  |
| Sacramento County<br>Sheriff's Office   | n/a                  | \$35,000.00  |  |  |  |  |

### Section 5:

# **2007 Program Enhancements** and New Laws

## A. Media Outreach

## Campaign builds on previous success

The multi-media boating safety campaign runs May to October in Northern California and year-round in Southern California. Cal Boating continued a successful "Responsibility" campaign, its message: "If It's Your Boat, It's Your Responsibility." Building on the accomplishments of a new campaign in 2006, new billboards, posters and radio ads were created addressing boater responsibility, education, hazardous effects of operator inattention, and special proactive messages emphasizing Boating Under the Influence (BUI) enforcement aired throughout the boating season with increased presence prior to all popular three-day holiday weekends (Memorial Day, Independence Day and Labor Day).

Accident victim testimonials increased for the 2007 radio campaign and aired on 57 radio stations statewide. Cal Boating also continued promoting the www.BoatSmarter.com Web site and encouraged all boaters to share their stories.

The program dispatched mobile billboards at popular launching ramps and marinas and continued to place all-weather posters statewide at launching ramps, park entrances and fuel docks reminding boaters to be responsible on the water.

## **Additional Radio Boating Safety Messages**

Cal Boating created and produced new 30 and 15-second radio testimonials, Tony, that were added to the highly successful Scott and Dave spots, addressing the importance of operator education, paying attention and traveling at a safe speed while boating, along with life jacket usage and awareness of cold water dangers.



## **Television Boating Safety Promotions**

In March 2007, Cal Boating partnered with the San Diego area XETV, Fox 6 News in the Morning to heighten awareness of boating and water safety in the San Diego area with a Spring Break Safety Promotion. The newscast promoted proper life jacket fitting, hands-on boating safety classes, water rescues and encouraged viewers to stop by for free life jackets. In addition to this, the television station produced and aired 30 "Boating Safety Announcements" that ran during the morning newscast throughout the week to drive viewers to Fox6.com to take the Cal Boating online safety quiz and be eligible for an angler prize provided by Anglers Marine. "Safety Totes" were available for "purchase" (bonus point redemption, no cash value) online through the "Couch Potato" viewer loyalty program. All 450 totes were redeemed by "Couch Potato" members.

Additional successful television "Safety Promotion" partnerships with news anchor personalities recording PSAs were carried out with Redding TV station KRCR for Memorial Day weekend and then with Sacramento TV station KMAX for the 4th of July holiday.

#### Internet

All media outreach directly prompted viewers and listeners to learn more about boating safety and education on the department's Web sites, www.dbw.ca.gov, www.BoatSmarter.com, and www.BoatResponsibly.com.

These sites garnered 89,808 visits, with 65,165 being unique page views throughout the year. Radio and televisions also added a Cal Boating presence with banners, logos and links from their Web sites to the department's. In addition, the stations included 2,369 Web site streaming units of the safety messages over the boating season from their websites.

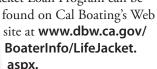
## Spanish Language

The Sacramento Univision television station gave Cal Boating the opportunity to relay boating safety information to the Spanish-speaking community. Live feed interviews took place during the summer months.

## B. Other Outreach to the Public

## **Life Jacket Loan Program**

Cal Boating continues the Life Jacket Loan Program, partnering with fire stations and other voluntary venues to offer free short-term life jacket use for the public. Loan locations have gradually increased over the years to extend beyond the Greater Sacramento area. In 2007, there were 34 loaner locations participating in the program. A current list of locations for the Life Jacket Loan Program can be







## C. New Laws

As of January 1, 2008, the following laws are now in effect:

**AB 118** establishes the Air Quality Improvement Program to fund air quality improvement projects, and the Alternative and Renewable Fuel and Vehicle Technology Program to provide grants and loans for projects that develop innovative technologies that transform the state's fuel and vehicle types to help attain climate change policies, including vessel-related technologies. AB 118 transfers money from existing funds and increase fees related to motor vehicle registration, special equipment identification plates, smog abatement and original vessel registration only (from \$10 to \$20 for vessels purchased in evennumbered years and \$20 to \$40 for vessels purchased in odd-numbered years, as applicable) to fund these new programs. The bill also requires the Energy Commission to create an advisory committee, specifically including participation by recreational boaters and many other interested parties, to help plan for the Alternative and Renewable Fuel and Vehicle Technology Program.

AB 695—Requires retail sellers of new vessels with spark-ignition engines, on and after July 1, 2008, to certify that the vessel engine has a permanent label indicating that the engine meets or exceeds 2008 California emissions standards. AB 695 also requires the application form for vessel numbering to have a line or check-off box for the purpose of indicating the retail seller's certification. This provision would apply to vessels with spark-ignition engines under 373 kw (500 hp) manufactured after January 1, 2008, and all vessels with spark-ignition

engines manufactured after January 1, 2009. In effect, this bill prohibits a person from purchasing an undocumented vessel outside of California for use in this state with the intent of avoiding the California emissions standards established by the California Air Resources board.

This bill requires the applicant (buyer) to submit proof to the Department of Motor Vehicles that a new vessel with a spark-ignition engine meets or exceeds 2008 California emissions standards, if the retail seller does not provide this certification.

AB 951—Prohibits a person in a non-motorized vessel on the portion of the Lower American River from the Hazel Avenue bridge to the Watt Avenue bridge from possessing an alcoholic beverage when the Sacramento County Board of Supervisors prohibits the consumption or possession of an open container along the land portions of the river during summer holiday periods. AB 951 requires Sacramento County to post notices along the applicable river section describing that a violation is punishable by an infraction.

AB 1683—Prohibits a person from possessing,

importing, shipping, transporting, or placing in any state waterway, dreissenid (a.k.a. quagga) mussels, and authorizes the Department of Fish and Game and other agencies, as specified, to inspect and order the cleaning, impounding, or quarantine as necessary, of any conveyance potentially carrying dreissenid mussels, including at water delivery and storage facilities under specified circumstances. The bill also 1) authorizes the Department of Fish and Game, with the concurrence of the Secretary of the Resources Agency, to close or restrict access to waterways as necessary to prevent the spread of dreissenid mussels, and 2) provides that any entity in the state discovering dreissenid mussels must report the finding immediately.

For more information about the quagga mussel call 866-440-9530 or go to www.dfg.ca.gov/quaggamussel.



### Section 6:

# **Accident Data Charts**

he charts in this section are designed to provide general statewide information on boating accidents. Some charts are organized by the number of accidents or fatalities. Other charts are organized by the number of vessels involved in accidents.

The totals listed on the charts listing the types of accidents (Charts 8, 15 and 24) and the causes of accidents (Charts 9, 16 and 25) exceed the total number of accidents because many accidents were grouped into more than one category.

The charts listing the ages of operators involved in accidents (Charts 6 and 22) show both the total number of vessels involved in accidents and a smaller total showing the total number of operators involved in accidents, as not all vessels had operators.



# Chart 1: Accidents by Month Total Accidents - 804

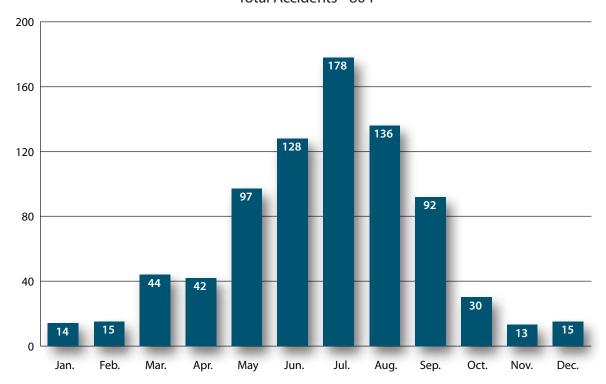


Chart 2: Accidents by Day of the Week
Total Accidents - 804

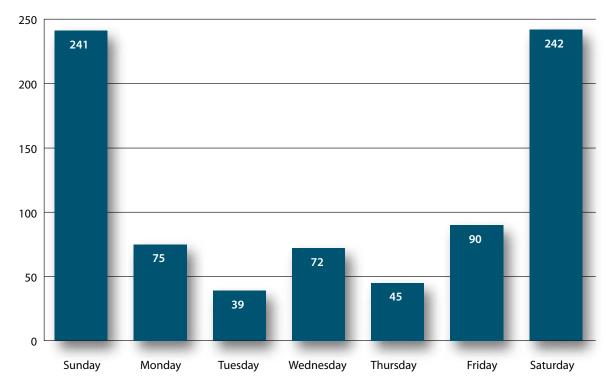




Chart 3: Accidents by Time of Day Total Accidents - 804

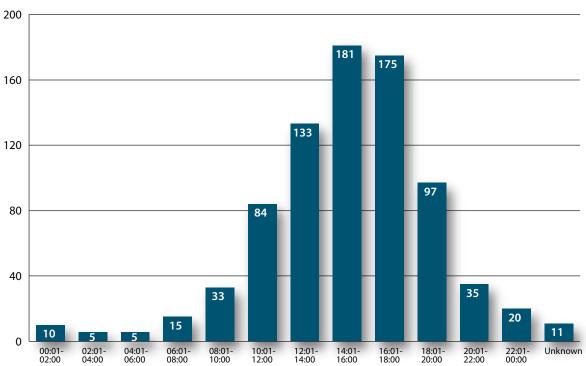


Chart time periods are shown using military time.

Chart 4: Vessels Involved in All Accidents by Type

Total Vessels - 1137

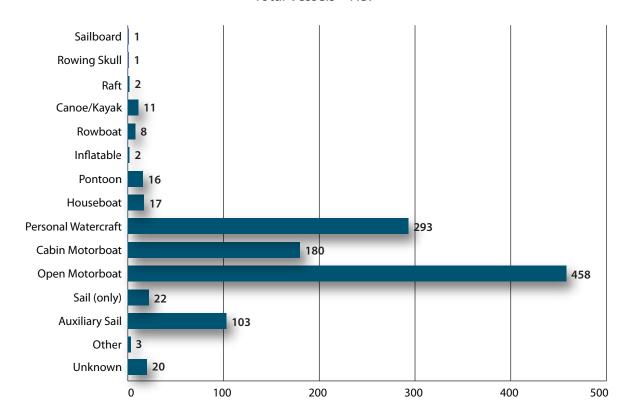
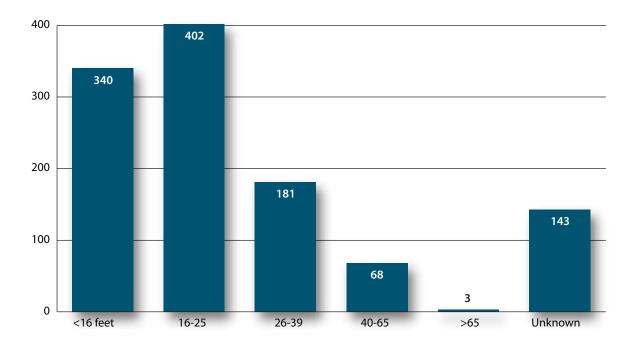


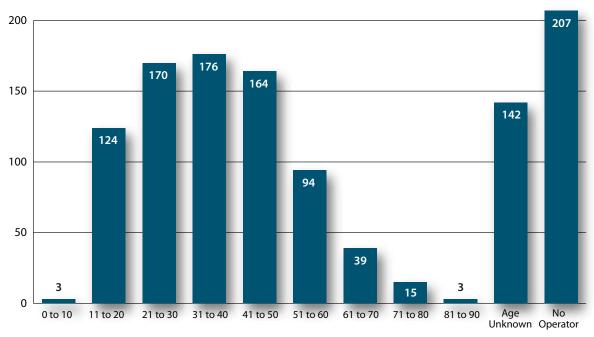
Chart 5: Vessels Involved in All Accidents by Length

Total Vessels - 1137



# Chart 6: Operators Involved in All Accidents by Age

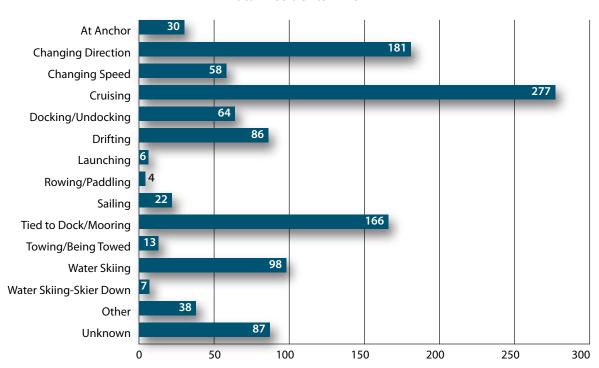
Total Vessels - 1137



"No Operator" referse to accidents involving vessels where there was no operator present at the time of accident. Most of these vessels were in vessel slips, tied to docks, or moored, and were struck by other vessels. Some accident reports submitted to the department do not include operator age information, as indicated by the "Age Unknown" category.

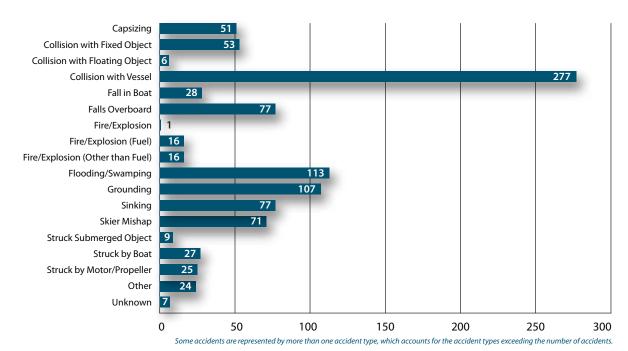
## **Chart 7: Operation at Time of Accident**

Total Accidents - 1137



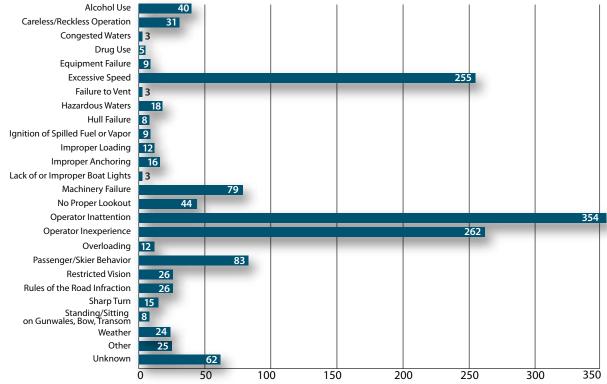
# **Chart 8: Type of Accident**

Total Types - 985 Total accidents - 804



### **Chart 9: Cause of Accident**

Total Causes - 1432 Total accidents - 804

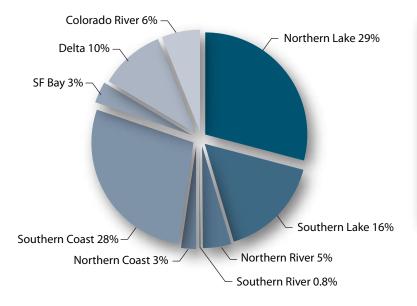


Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.



# **Chart 10: Accident Locations**

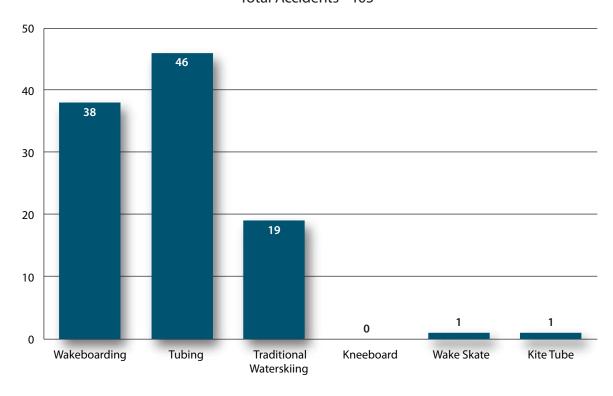
Total Accidents - 804



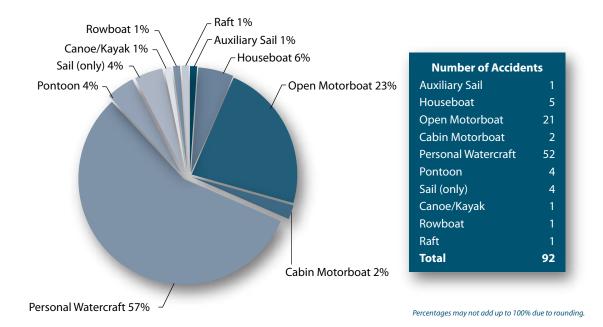
| Number of Accidents |     |  |  |  |  |  |  |
|---------------------|-----|--|--|--|--|--|--|
| Northern Lake       | 234 |  |  |  |  |  |  |
| Southern Lake       | 131 |  |  |  |  |  |  |
| Northern River      | 36  |  |  |  |  |  |  |
| Southern River      | 1   |  |  |  |  |  |  |
| Northern Coast      | 19  |  |  |  |  |  |  |
| Southern Coast      | 224 |  |  |  |  |  |  |
| SF Bay              | 27  |  |  |  |  |  |  |
| Delta               | 83  |  |  |  |  |  |  |
| Colorado River      | 49  |  |  |  |  |  |  |
| Totals              | 804 |  |  |  |  |  |  |
|                     |     |  |  |  |  |  |  |

Percentages may not add up to 100% due to rounding.

# Chart 11: Water Skiing Accidents Total Accidents - 105

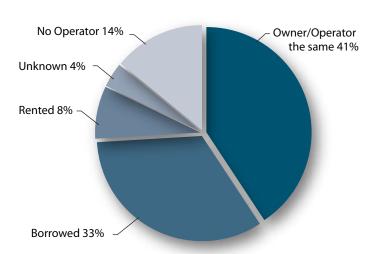


## Chart 12: Rented Vessels Involved in All Accidents by Type Total Vessels - 92



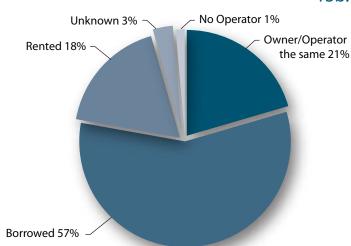
# Chart 13: Ownership Status of Vessels, PWC and Open Motorboats Involved in Accidents

#### 13a: All Vessels Involved in Accidents



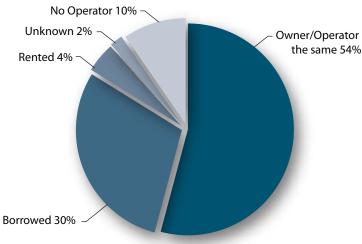
| Number of Vessels       |      |  |  |  |  |  |  |  |
|-------------------------|------|--|--|--|--|--|--|--|
| Owner/Operator the same | 463  |  |  |  |  |  |  |  |
| Borrowed                | 379  |  |  |  |  |  |  |  |
| Rented                  | 92   |  |  |  |  |  |  |  |
| Unknown                 | 43   |  |  |  |  |  |  |  |
| No Operator             | 160  |  |  |  |  |  |  |  |
| Total Vessels           | 1137 |  |  |  |  |  |  |  |
|                         |      |  |  |  |  |  |  |  |

### 13b: PWC Involved in Accidents



| Number of PWCs          |     |  |  |  |  |  |
|-------------------------|-----|--|--|--|--|--|
| Owner/Operator the same | 60  |  |  |  |  |  |
| Borrowed                | 168 |  |  |  |  |  |
| Rented                  | 52  |  |  |  |  |  |
| Unknown                 | 9   |  |  |  |  |  |
| No Operator             | 4   |  |  |  |  |  |
| Total Vessels           | 293 |  |  |  |  |  |

# 13c: Open Motoboats Involved in Accidents

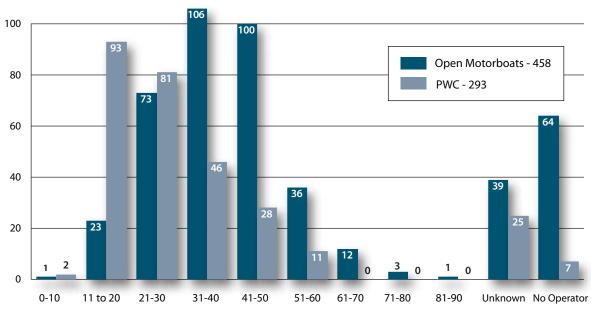


| Number of Open Motorboats |     |  |  |  |  |  |
|---------------------------|-----|--|--|--|--|--|
| Owner/Operator the same   | 248 |  |  |  |  |  |
| Borrowed                  | 136 |  |  |  |  |  |
| Rented                    | 21  |  |  |  |  |  |
| Unknown                   | 9   |  |  |  |  |  |
| No Operator               | 44  |  |  |  |  |  |
| Total Vessels             | 458 |  |  |  |  |  |

Percentages may not add up to 100% due to rounding.

# Chart 14: Open Motorboats/PWC - Operators Involved in Accidents by Age

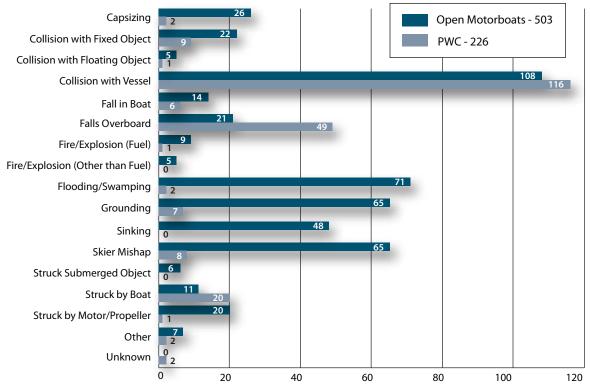
Total Open Motorboat Operator - 458 Total PWC Operator - 293



"No Operator" referse to accidents involving vessels where there was no operator present at the time of accident. Most of these vessels were in vessel slips, tied to docks, or moored, and were struck by other vessels. Some accident reports submitted to the department do not include operator age information, as indicated by the "Age Unknown" category.

## Chart 15: Open Motorboats/PWC - Type of Accident

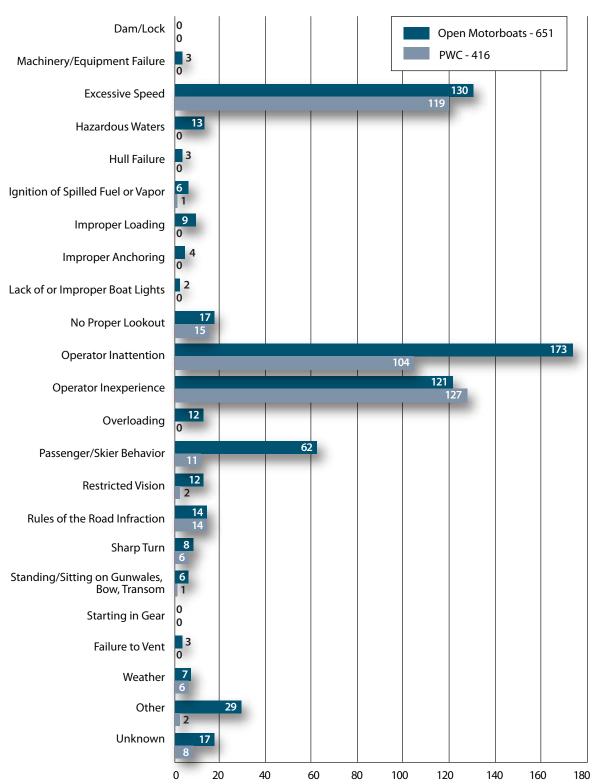
Total Open Motorboat Types - 503 Total Open Motorboat Accidents - 397 Total PWC Types - 226 Total PWC Accidents - 204



 $Some\ accidents\ are\ represented\ by\ more\ than\ one\ accident\ type,\ which\ accounts\ for\ the\ accident\ types\ exceeding\ the\ number\ of\ accidents.$ 

# **Chart 16: Open Motorboats/PWC - Cause of Accident**





Many accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.

# Chart 17: Fatalities by Month Total Fatalities - 55

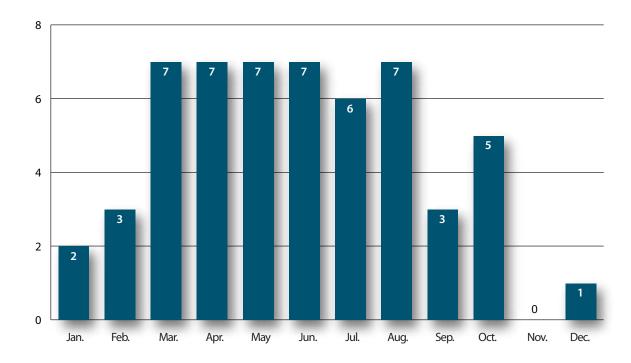


Chart 18: Fatalities by Day of the Week
Total Fatalities - 55

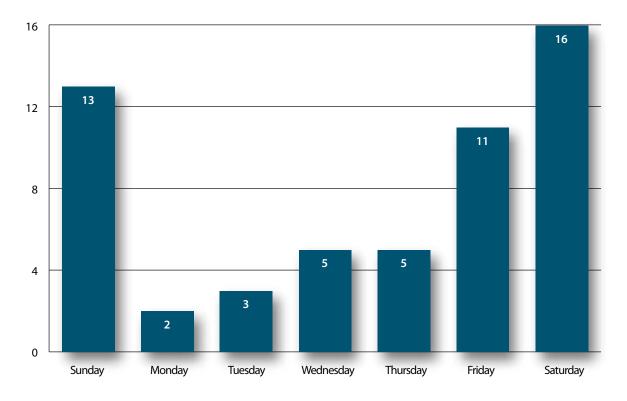




Chart 19: Fatalities by Time of Day Total Fatalities - 55

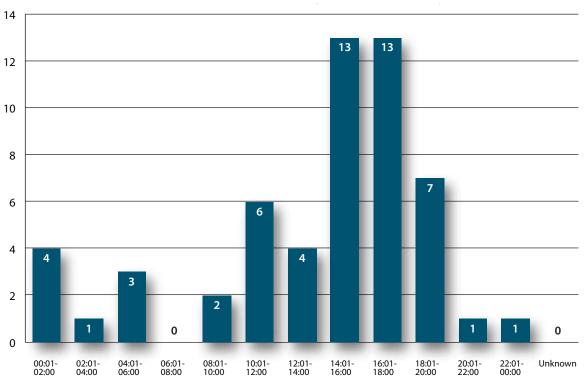


Chart time periods are shown using military time.

# Chart 20: Types of Vessels Involved in Fatal Accidents Total Vessels - 58 Total Fatalities - 55

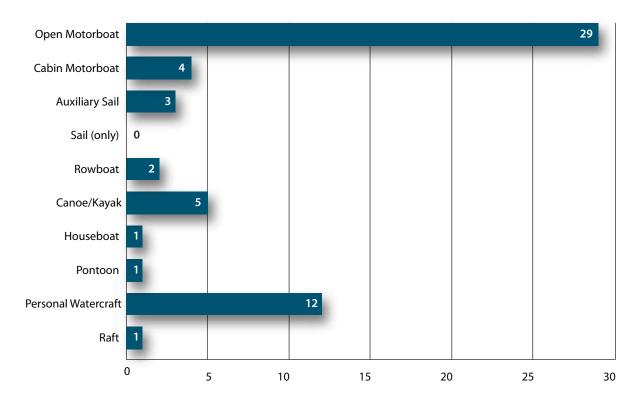
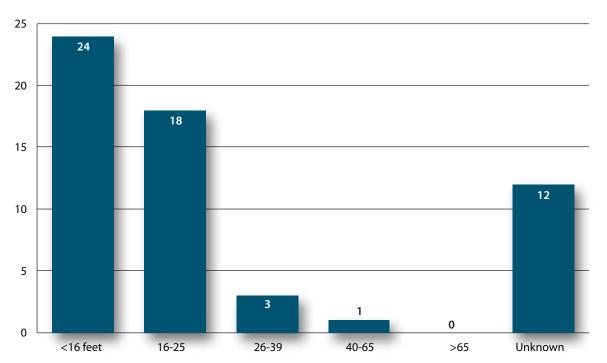
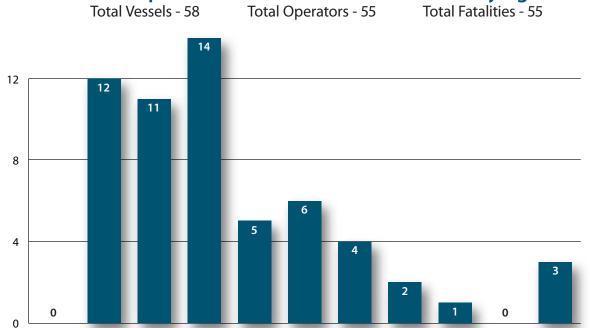


Chart 21: Fatalities by Length of Vessel
Total Vessels - 58
Total Fatalities - 55

Total Vessels - 58



# Chart 22: Operators Involved in Fatal Accidents by Age



# **Chart 23: Fatalities by Operation at Time of Accident**

51-60

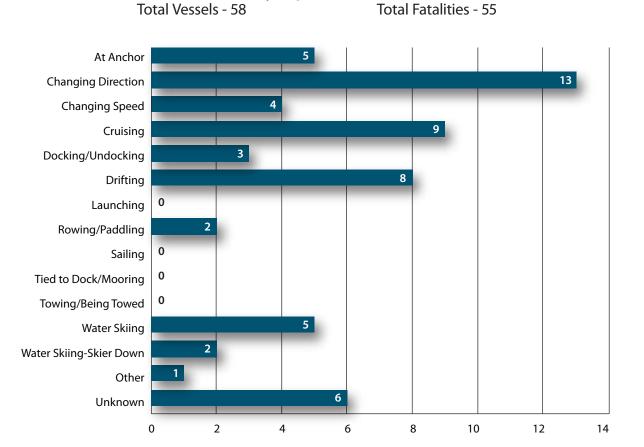
61-70

81-90 Unknown No Op.

41-50

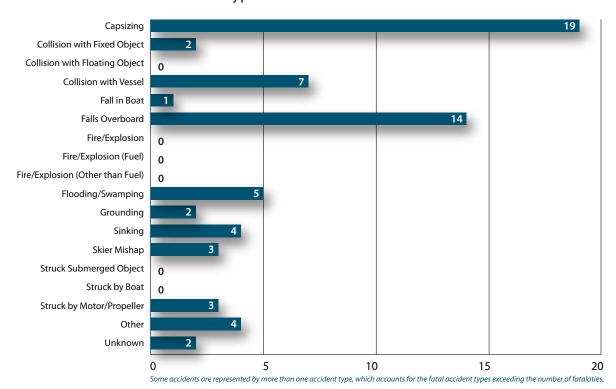
31-40

0-10



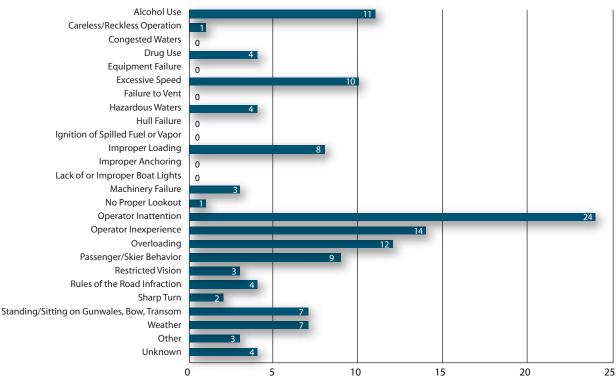
# **Chart 24: Fatalities by Type of Accident**

Total Types - 66 Total Fatalities - 55



# **Chart 25: Fatalities by Cause of Accident**

Total Causes - 131 Total Fatalities - 55



Many fatal accidents had more than one cause, which is reflected in this chart. The "Other" category includes causes that do not fit into any of the other categories listed above.

18

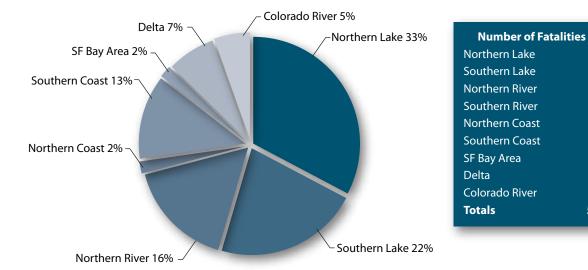
12

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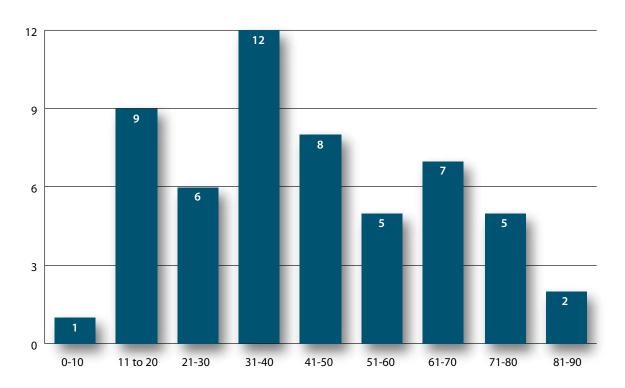
55

# Chart 26: Fatalities by Accident Location Total Fatalities - 55

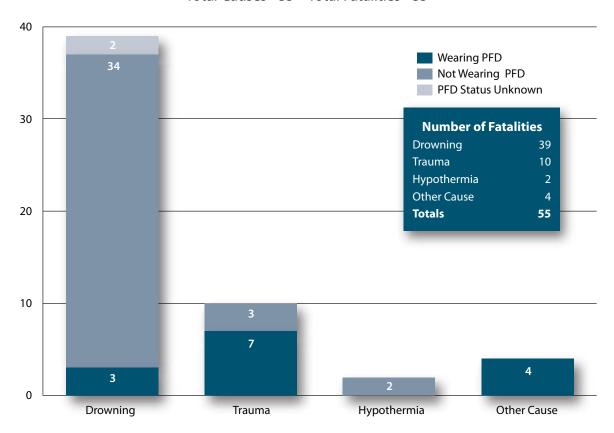


# **Chart 27: Fatalities by Age of Victim**

Total Fatalities - 55



# Chart 28: Fatalities by Cause of Death Total Causes - 55 Total Fatalities - 55





| Notes |  |
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The operator of every recreational vessel is required by Section 656 of the Harbors and Navigation Code to file a written report whenever a boating accident occurs which results in death, disappearance, injury that requires medical attention beyond first aid, total property damage in excess of \$500, or complete loss of a vessel. Reports must be submitted within 48 hours in case of death occurring within 24 hours of an accident, disappearance, or injury beyond first aid. All other reports must be submitted within 10 days of the accident. Reports are to be submitted to the California Department of Boating and Waterways at 2000 Evergreen Street, Suite 100, Sacramento, California 95815-3888, (916) 263-8189. Failure to submit this report as required is a misdemeanor and is punishable by a fine not to exceed \$1000 or imprisonment not to exceed 6 months or both. DATE OF ACCIDENT (M/D/Y) TIME OF ACCIDENT COUNTY BODY OF WATER LOCATION ON WATER ☐ AM # INJURED # DFAD TOTAL \$\$ LAW ENFORCEMENT ON ACCIDENT SCENE? AGENCY NAME ☐ YES ☐ NO WEATHER (CHECK ALL THAT APPLY): WATER CONDITIONS WIND CONDITIONS TEMPERATURE □ NONE ☐ CALM (waves less than 6") WATER AIR ☐ CLEAR ☐ RAIN LIGHT (0-6 mph) VISIBILITY STRONG CURRENT ☐ CHOPPY (waves 6"-2") ☐ CLOUDY ☐ SNOW ☐ MODERATE (7-14 mph) ☐ GOOD ☐ ROUGH (waves 2'-6') ☐ YES ☐ NO ☐ STRONG (15-25 mph) FAIR FOG ☐ HAZY ☐ VERY ROUGH (waves >6') ☐ STORM (over 25 mph) ☐ POOR TYPE OF ACCIDENT (CHECK ALL THAT APPLY): CAUSE OF ACCIDENT (CHECK ALL THAT APPLY): □ CAPSIZING ☐ FIRE / EXPLOSION (fuel) ☐ IMPROPER LOOKOUT / INATTENTION ☐ HAZARDOUS WEATHER / WATER ☐ COLLISION WITH VESSEL ☐ FIRE / EXPLOSION (other than fuel) ☐ OPERATOR INEXPERIENCE ☐ RESTRICTED VISION □ COLLISION WITH FIXED OBJECT ☐ FLOODING / SWAMPING ☐ EXCESSIVE SPEED ☐ IGNITION OF SPILLED FUEL / VAPOR ☐ COLLISION WITH FLOATING OBJECT ☐ SINKING ■ MACHINERY FAILURE ☐ IMPROPER ANCHORING ☐ FALL OVERBOARD ☐ STRUCK BY BOAT / PROPELLER ■ EQUIPMENT FAILURE ☐ ALCOHOL USE ☐ FALL IN BOAT ☐ SKIER MISHAP ☐ IMPROPER LOADING ☐ FAILURE TO VENT □ OTHER OVERLOADING OTHER \_ DESCRIBE WHAT HAPPENED AND WHAT YOU COULD HAVE DONE TO PREVENT THIS ACCIDENT (Explain the cause of death or injury, medical treatment, etc. Use sketch if helpful. If needed, continue description on additional paper.) **VICTIM OR WITNESS INFORMATION** COULD LIFE JACKET **VICTIM / WITNESS VICTIM / WITNESS** RIDING IN ΔGE INJURY DESCRIPTION **CAUSE OF DEATH** VICTIM SWIM? WORN? NAME & ADDRESS **STATUS** VESSEL# ☐ INJURED DROWNING ☐ YES ☐ YES ☐ TRAUMA □ DEAD □ NO □ NO ☐ OTHER ■ WITNESS ONLY ■ INJURED □ DROWNING ☐ YES ☐ YES ☐ TRAUMA DEAD □ NO ■ NO ■ WITNESS ONLY ☐ OTHER □ DROWNING ■ INJURED YES ☐ YES □ DEAD ☐ TRAUMA □ NO □ NO ■ WITNESS ONLY ☐ OTHER ☐ INJURED □ DROWNING ☐ YES ☐ YES □ DEAD □ TRAUMA □ NO □ NO ■ WITNESS ONLY ☐ OTHER

| INFORMATION: OPERATOR #1   |           |         |  |  |   |                       |  |   |                                     |  |   |   |                    |            |                               |
|--|-----------|---------|--|--|---|-----------------------|--|---|-------------------------------------|--|---|---|--------------------|------------|-------------------------------|
| OPERATOR NAME AND ADDRESS  |           |         |  | IS OWNER DIFFERENT THAN OPERATOR?  OWNER NAME AND ADDRESS    |   |                       |  | ☐ YES ☐ NO  |                                     | OPERATOR EXPERIENCE  UNDER 10 HOURS  10 TO 100 HOURS  OVER 100 HOURS                               |   | OPERATOR EDUCATION  AMERICAN RED CROSS USCG AUXILIARY US POWER SQUADRON STATE COURSE INFORMAL |                    |            |                               |
| AGE  |           |         |  |  |   |                       |  |   |                                     |  |   |   |                    | NONE       |                               |
| INFORMATION: VESSEL #1   |           |         |  |  |   |                       |  |   |                                     |  | (YOUR VESSEL)   |   |                    |            |                               |
| THIS<br>VESSEL<br>ONLY   | # INJURED | # DEAD  | ESTIMATE   | D DAMAGE   |   | RENTED BOAT           | NO   |   | #                                   | OF PERSONS ON B  | BOARD   |   | # OF PERSONS TOWED |            |                               |
| BOAT NUMBER (CF OR D   | OCC #)    |         | MFR. HULI  | L ID#  | D# BOAT NAME  |                       |  |   |                                     | LENGTH   |   |   |                    |            |                               |
| BOAT MANUFACTURER  |           | E       | BOAT MODEL   |  |   |                       | YEA  | AR BUILT  | TYPE OF FUEL # OF EN                |  |   | F ENGINES   | NGINES HORSEPOWER  |            |                               |
| ACTIVITY  RECREATIONA  | L COMMER  | RCIAL [ | OTHER  |  |   | XTINGUISHER ON BOAR   | D  | FIRE EXTINGUI   | ISHER USED LIFE JACKETS  □ NO □ YES |  | <b>I</b>  |   | KETS ACC           |            | LIFE JACKETS WORN             |
| TYPE OF BOAT  OPEN MOTORBOAT  CABIN MOTORBOAT  PERSONAL WATERCRAFT  HOUSEBOAT  SAILBOAT (aux. engine)  SAILBOAT (sail only)  CANOE / KAYAK  RAFT  ROWBOAT  OTHER (specify)   |           |         | NYL  |  | PROPULSION  OUTBOARD  INBOARD  INBOARD / OUTBOARD  JET  SAIL ONLY  PADDLE / OARS  OTHER (specify)   |                       |  | OPERATION AT TIME OF ACCIDENT  CRUISING CHANGING DIRECTION CHANGING SPEED TOWING SKIER / TUBER TOWING SKIER- SKIER DOWN TOWING ANOTHER VESSEL BEING TOWED BY ANOTHER VESSE  SPEED |                                     |  | ☐ DRIFTING  ☑ AT ANCHOR ☐ TIED TO DOCK ☐ LAUNCHING ☐ DOCKING / LEAVING DOCK ☐ SAILING L ☐ OTHER (specify) |   |                    |            |                               |
|  |           |         |  |  | 1115  | ORMATION              |  | 22524   | 00 "0                               |  |   |   |                    |            |                               |
| <u> </u>   |           |         |  | IS OWNER DIFFERENT THAN OPERATOR? YES OWNER NAME AND ADDRESS |   |                       | OPERATOR EXPERIENCE  UNDER 10 HOURS  10 TO 100 HOURS  OVER 100 HOURS |   |                                     | OPERATOR EDUCATION  AMERICAN RED CROSS USCG AUXILIARY US POWER SQUADRON STATE COURSE INFORMAL NONE |   |   |                    |            |                               |
|  |           |         |  |  | 11  | NFORMATIC             | DN:  | : VESSE   | L #2                                |  |   |   | OTHE               | . VESS     | EL INVOLVED)                  |
| THIS<br>VESSEL<br>ONLY   | # INJURED | # DEAD  | ESTIMATE   | D DAMAGE \$\$  |   | RENTED BOAT  PYES PNO |  |   | # OF PERSONS ON BOARD               |  |   |   | # OF PERSONS TOWED |            |                               |
| BOAT NUMBER (CF OR D   | OOC #)    |         | MFR. HULI  | L ID#  |   |                       | BOA  | AT NAME   | ME                                  |  |   |   | LENGTH             |            |                               |
| BOAT MANUFACTURER  |           | E       | BOAT MODEL   |  |   |                       |  | AR BUILT  | TYPE OF FUEL                        |  | # OF ENGINES  |   | ŀ                  | HORSEPOWER |                               |
| ACTIVITY  RECREATIONAL   | L COMMER  | RCIAL 🗆 | OTHER  |  | FIRE EXTINGUISHER ON BOAR   |                       | D  | FIRE EXTINGUI   | SHER USED                           |  |   |   | KETS ACC           |            | LIFE JACKETS WORN             |
| TYPE OF BOAT  OPEN MOTORBOAT CABIN MOTORBOAT PERSONAL WATERCRAFT HOUSEBOAT SAILBOAT (aux. engine) SAILBOAT (sail only) CANOE / KAYAK RAFT ROWBOAT OTHER (specify)  HULL MATERIAL WOOD RIBDRAT (WOOD RIBDRATSIA RUBINUM PIBERGLASS PLASTIC RUBBER / VINYL OTHER (specify) |           |         | PROPULSION  OUTBOARD  INBOARD / OUTBOARD  JET  SAIL ONLY  PADDLE / OARS  OTHER (specify) |  | OPERATION AT TIME OF ACCIDENT  CRUISING CHANGING DIRECTION AT ANCHOR CHANGING SPEED TIED TO DOCK LAUNCHING TOWING SKIER / TUBER DOCKING / LEAVIN TOWING ANOTHER VESSEL SEL BEING TOWED BY ANOTHER VESSEL OTHER (specify)  SPEED MPH |                       |  | OR<br>DOCK<br>NG<br>6 / LEAVING DOCK  |                                     |  |   |   |                    |            |                               |
| NAME OF PERSON   |           |         |  |  |   |                       |  |   |                                     |  |   |   |                    |            | LETING REPORT OTHER (specify) |

# **Glossary of Boating Terms**

#### **At Anchor**

Held in place in the water by an anchor; includes "moored" to a buoy or anchored vessel, and "dragging anchor."

#### **Cabin Motorboat**

Motorboat with a cabin that can be completely closed by means of doors or hatches.

#### Capsizing

Overturning of a vessel. The bottom must become uppermost, except in the case of a sailboat, which may lie on its side.

#### **Collision with Fixed Object**

The striking by a vessel of any fixed object, above or below the surface of the water.

#### **Collision with Floating Object**

Collision with any waterborne object above or below the surface of the water.

#### Cruising

Proceeding normally, unrestricted, with an absence of drastic rudder or engine changes.

#### **Drifting**

Under way, but proceeding without use of engines, oars, or sails; carried along only by the tide, current, or wind.

### **Excessive Speed**

Operating at a speed that is not responsible, prudent, or legal considering the circumstances.

## Fire/Explosion (Fuel)

Accidental combustion of vessel fuel or liquids, including their vapors.

## Flooding/Swamping

Filling with water, but retaining sufficient buoyancy to remain on the surface.

#### Grounding

The running aground of a vessel; striking or pounding on the rocks, reefs, or shoals.

#### **Improper Lookout**

No proper watch; the failure of an operator to perceive danger because no one was serving as a lookout, or the person so serving failed to do so. For purposes of this report, this term refers only to accidents where the ski observers were not present or failed to do their job, or sailboat accidents where a lookout was not posted or failed to perceive danger. All other accidents involving inattentive operators fall under "Operator Inattention."

#### Maneuvering

Changing of course, speed, or similar boat handling action during which a high degree of alertness is required.

#### **Open Motorboat**

Craft of open construction specifically built for operating with a motor, including boats canopied or fitted with temporary partial shelters.

#### **Personal Floatation Device (PFD)**

Commonly known as a life jacket or life saving device, a PFD can be a jacket, vest, cushion, or ring buoy designed to serve as a lifesaving aid.

#### Personal Watercraft (PWC)

A small vessel that uses an internal combustion engine powering a jet pump or propeller. It is designed to carry from one to four persons, and to be operated by a person sitting, standing, or kneeling on the vessel rather than the conventional manner of sitting or standing inside the vessel.

#### **Rules of the Road**

Statutory and regulatory rules governing the navigation of vessels.



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